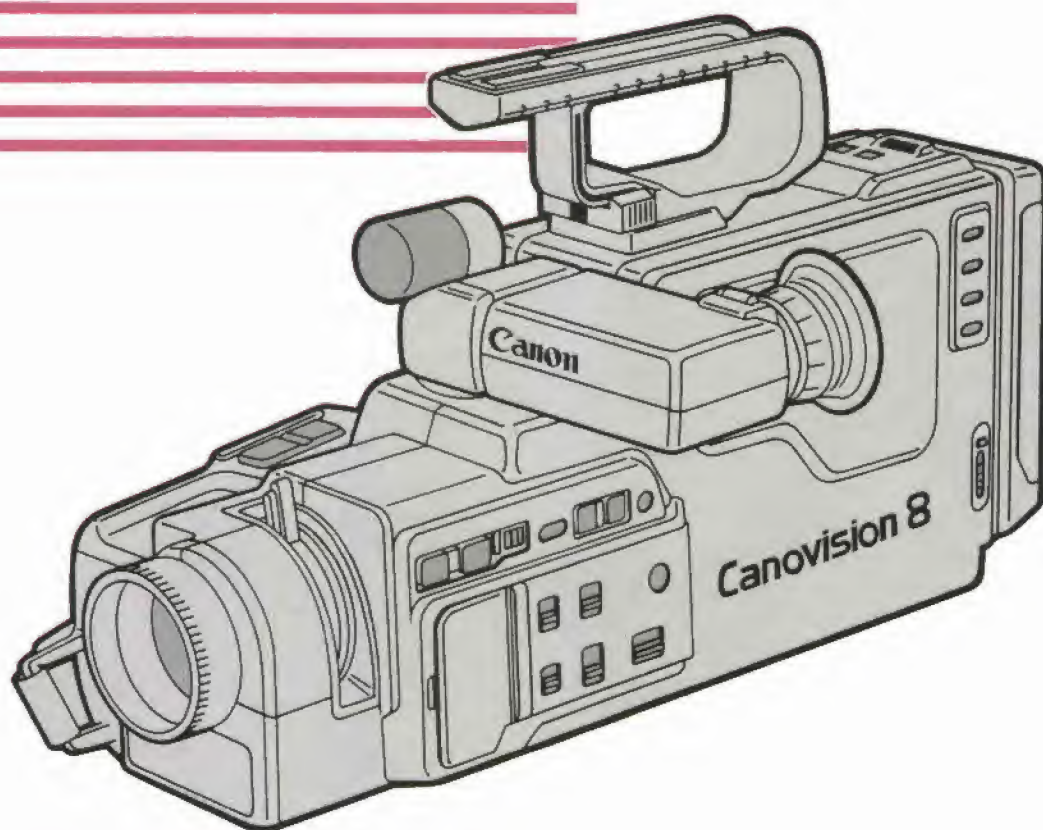


Canon

8

VM-E708

8mm VIDEO CAMERA & RECORDER



E INSTRUCTIONS

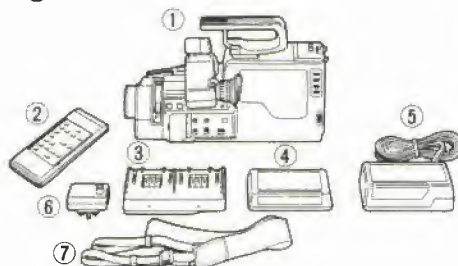


Thank you for purchasing the Canon 8mm Video Camera & Recorder VM-E708. The VM-E708 is a single-unit video camera & recorder designed in the 8mm format. Please use only P5 type video cassettes bearing the **[8]** mark with this unit.

- Both recording and playback are possible on this equipment.
- Recordings made with this unit cannot be played back on any video equipment except 8mm units.

Please check that this package contains the following items:

- ① VM-E708 [with Lens Cap, Lens Hood, Carrying Handle, Microphone and Lithium Battery]
- ② WL-E708 Wireless Controller with two AAA Batteries
- ③ BC-E3 Battery Coupler
- ④ BP-E22/E22E Battery Pack
- ⑤ CA-E2 Compact Power Adapter
- ⑥ RU-E3 RF Unit
- ⑦ SS-E2 Shoulder Strap



Available accessories:

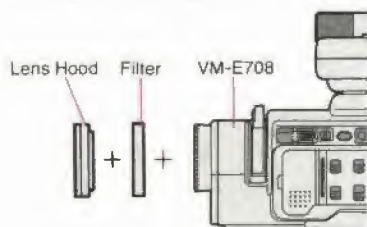
DM-200 Super-directional Microphone
MM-100 Mixing Microphone
MB-100 Microphone Boom
CB-E2 Car Battery Adapter
Wide Attachment 46
Tele-converter 1.4X 46
Multi-conversion Lens 46

Filter Set 46
Filter Set 46U
SB-E1 Shoulder Brace
CP-3 Chest Pod
C-150 AV Cable
SC-E708 Soft Carrying Case
HC-E708 System Case

If you use a filter with the VM-E708 lens:

Attach the lens hood onto the filter, otherwise the lens cap will not be able to fit.

- To remove the lens hood, hold the focusing ring and filter with one hand, and loosen the lens hood using the flat palm (not your fingers) of your other hand.
- VM-E708 with lens hood attached will not fit into the HC-E708 System Case.



CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK AND TO REDUCE ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

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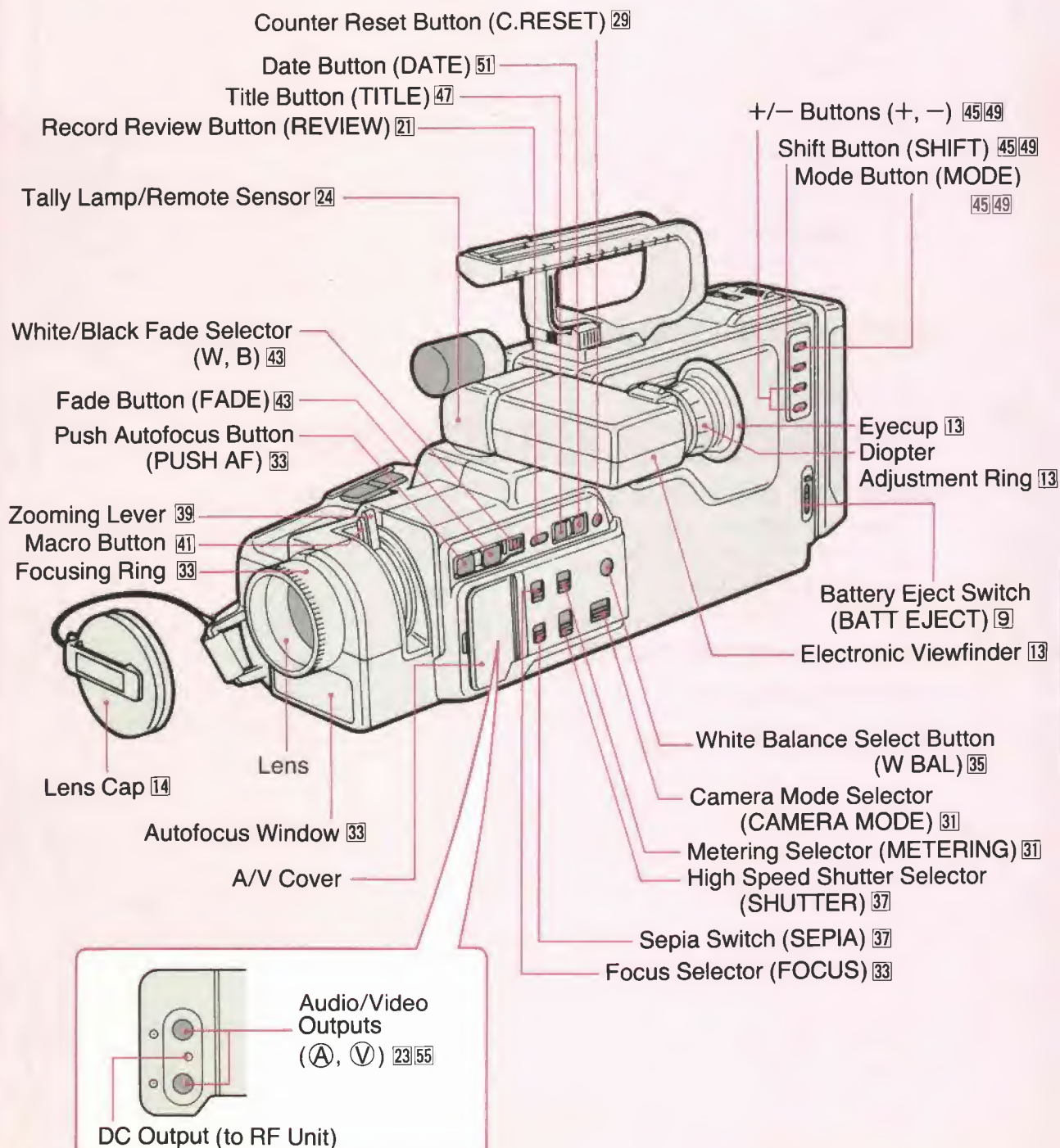
ADVANCED OPERATIONS

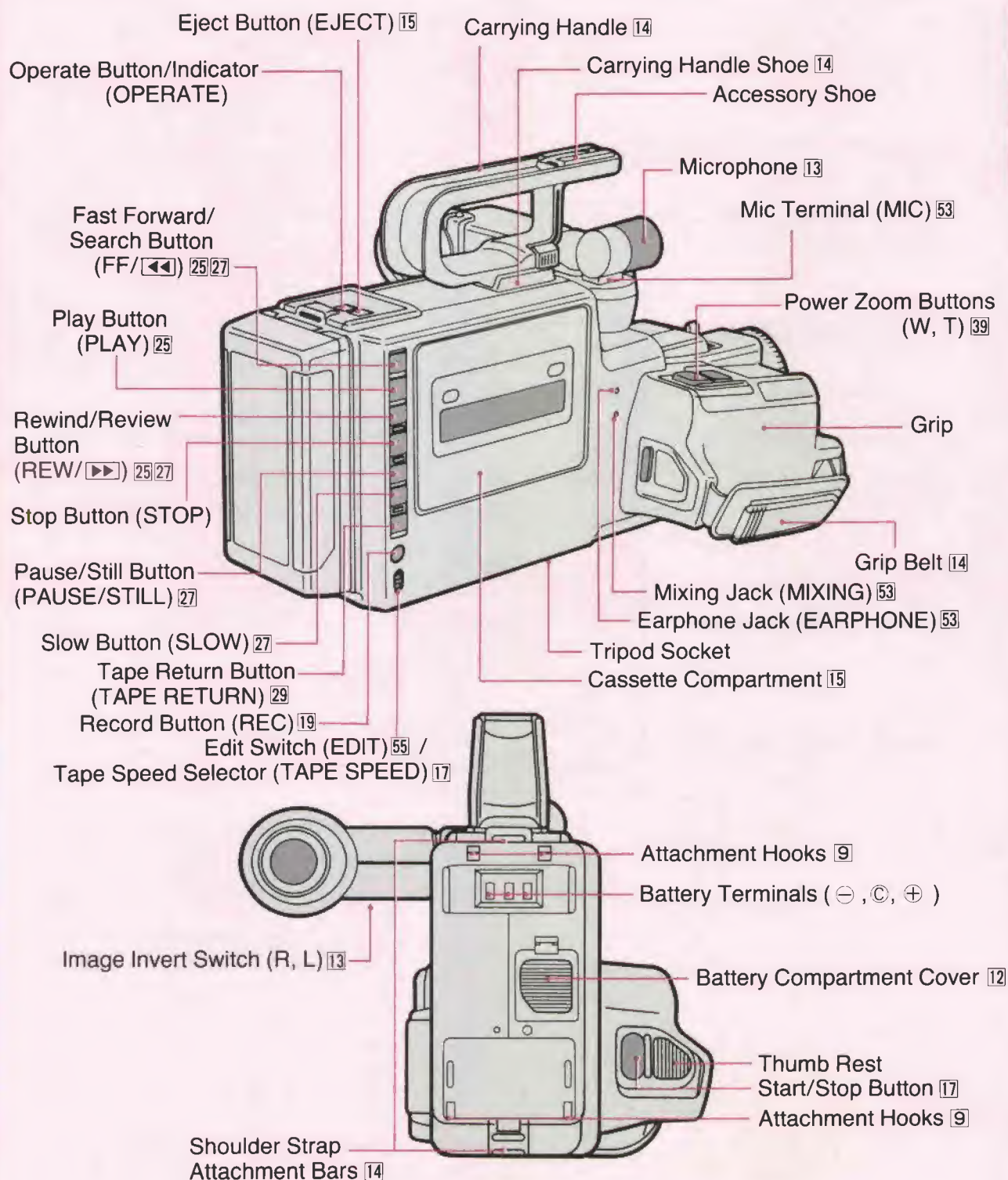
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NOMENCLATURE

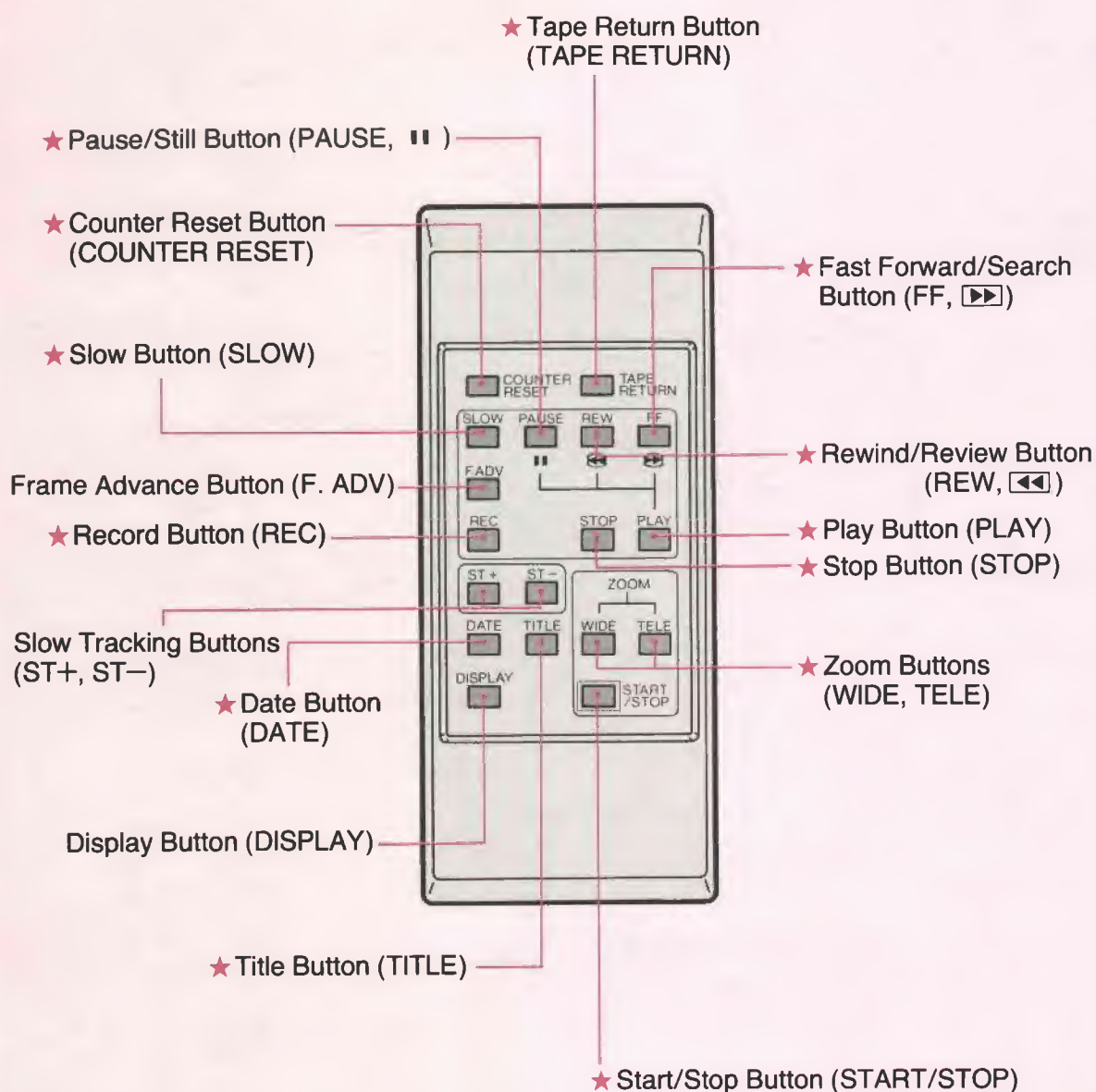
CAMERA

For details, refer to page number next to each item.





WIRELESS CONTROLLER WL-E708

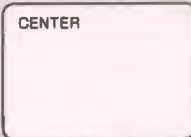
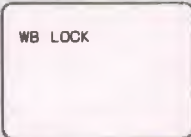
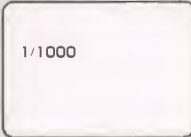



Buttons with ★ function same as those on camera.

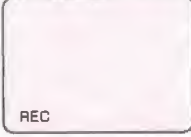
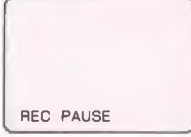
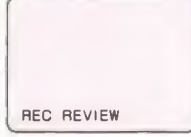
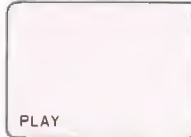

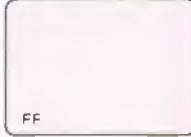
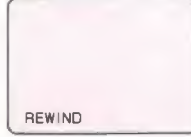
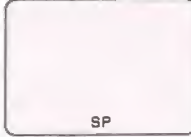
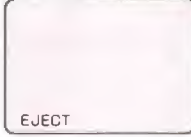
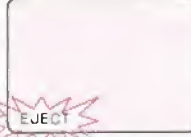
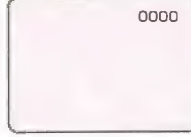



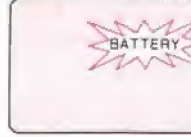


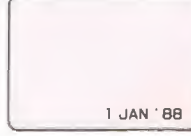
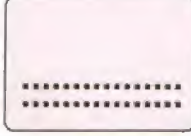
VIEWFINDER DISPLAY

Normally, the following displays (except date and title) will appear only on the camera viewfinder and not on a connected TV screen. Press the display button on the wireless controller to view displays on TV.

The following displays appear only when the camera mode selector is set to M:

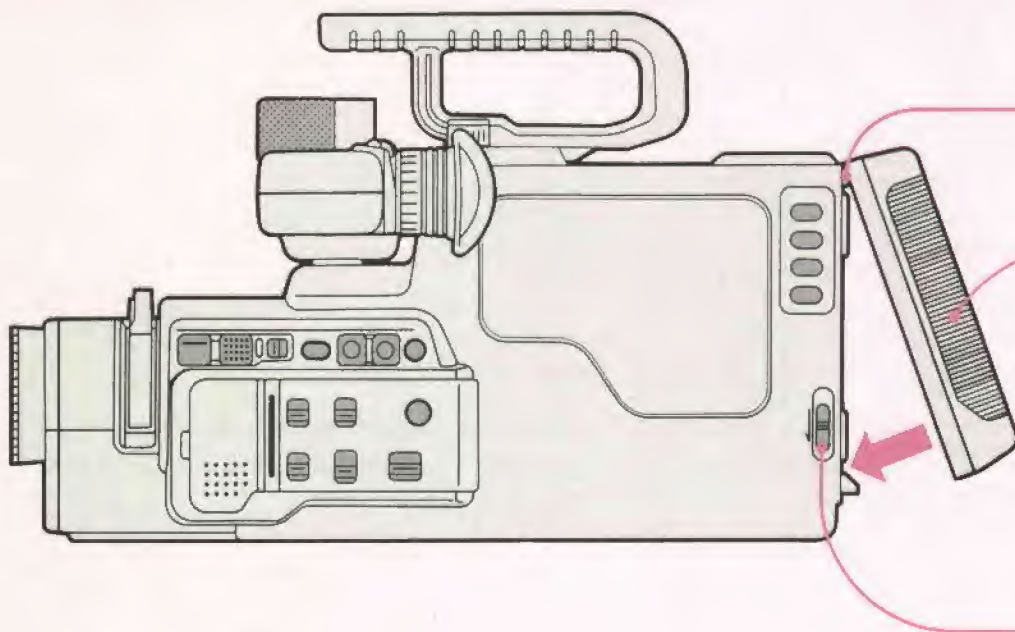
 <p>Appears when metering selector is set to CENTER.</p>	 <p>Indicates white balance lock is in use.</p>	 <p>1/1000 or 1/500 appears when high shutter speed is selected.</p>	 <p>Indicates sepia effect is in use.</p>
---	--	---	--

The following displays indicate current mode of operation:

 <p>Camera is in recording mode.</p>	 <p>Camera is in record pause mode.</p>	 <p>Camera is in record review mode.</p>	 <p>Camera is in playback, fast forward/rewind playback or slow-motion playback mode.</p>
 <p>Camera is in still playback or frame advance mode.</p>	 <p>Camera is in fast forward mode.</p>	 <p>Camera is in rewind mode.</p>	
 <p>SP: Standard tape speed is selected. LP: Long play tape speed is selected.</p>	 <p>Appears when eject button is pressed.</p>	 <p>Blinks when error has occurred (see p.59). In this case, unload and reload video cassette.</p>	 <p>Indicates tape counter reading (-9999-9999).</p>
 <p>Blinks during recording when remaining tape time is less than approx. 3-4 min.</p>	 <p>Appears when tape is used completely.</p>	 <p>Blinks when cassette is not loaded. (This display will fail to appear when condensation is present in camera.)</p>	 <p>Blinks when battery charge is nearly exhausted.</p>
 <p>Blinks when dew (condensation) is detected inside unit (see p.61).</p>	 <p>Blinks when lithium battery charge is low or when lithium battery is not in place.</p>	 <p>Auto Date: Date, month, and year (or hour and minute) displays appear.</p>	 <p>Title: Total of 32 characters can be displayed (2 lines, 16 characters each).</p>

POWER SOURCES

ATTACHING/REMOVING POWER SOURCE



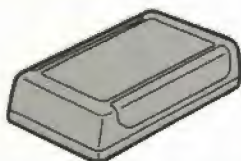
SELECTING POWER SOURCE

Three different power sources let you choose the one that best fits the recording location.

For active recording:

BP-E22/BP-E22E Battery Pack*

Make sure battery pack is fully charged before use.
Continuous recording time: approx. 70 min.



Notes for Battery Pack:

- Some camera modes may consume more power than others. Actual recording time may be less than 70 min.
- Using battery pack in cold temperature will shorten recording time.
- The battery pack may be warm during use. This is normal.
- Do not short circuit the plus and minus battery terminals.
- For further information regarding battery pack, refer to battery pack instruction manual.
- * There is no difference between BP-E22 and BP-E22E.

Attaching power source

- 1 Hook power source onto attachment hooks.



- 2 Press power source against VM-E708 until it clicks (locks) into place.



Attachment Hooks

Power Source

Removing power source

- 1 Slide battery eject switch downward.



- 2 Without releasing switch, remove power source (lower end first).

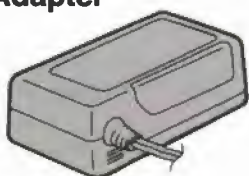


Battery Eject Switch

For recording using AC power:

CA-E2 Compact Power Adapter

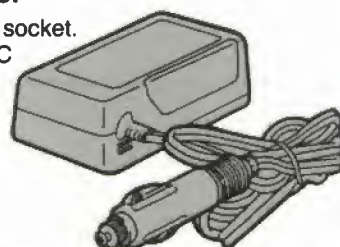
Plug into mains outlet.
Input voltage:
100—240V AC.



For recording using car battery:

CB-E2 Car Battery Adapter

Plug into cigarette lighter socket.
For use with 12 or 24V DC
negative-ground car
battery only.



CHARGING BATTERY PACK

Battery warning

When battery charge is nearly exhausted, BATTERY blinks in viewfinder and operate indicator also blinks. Replace the old battery pack with a new, fully charged battery pack.

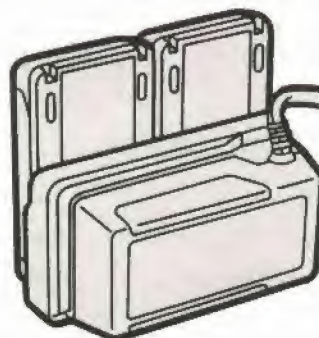
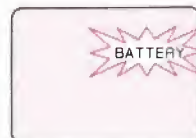
- Before removing battery pack, make sure camera is turned off.
- When battery warning appears, you cannot get camera out of stop mode and you cannot unload video cassette.

Charging battery pack

When charging one or two battery packs, use the BC-E3 Battery Coupler.

Connect compact power adapter (or car battery adapter) and battery pack(s) to the BC-E3 as shown and plug into mains outlet (or cigarette lighter socket).

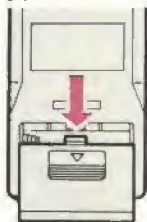
- Charge time is approx. 100 min. per battery pack.
- When charging a brand new battery pack or one that has not been used for approx. 6 months, leave battery connected to battery coupler and continue charging for several hours more (charging continues even though charge end indicator lights).
- Even if you do not use the camera often, recharge the battery pack every 6 months to ensure performance quality.
- For further information, refer to BC-E3 instruction manual.



INSERTING BATTERIES IN WIRELESS CONTROLLER

Wireless controller operates on 2 AAA batteries.

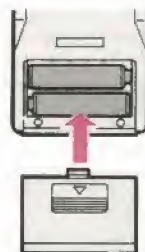
- 1** Remove cover from back by first pressing it down and then sliding it in direction of arrow.



- 2** Insert 2 AAA batteries following + and - markings inside unit. Do not reverse polarity of batteries.



- 3** Put cover back in place following guide grooves.

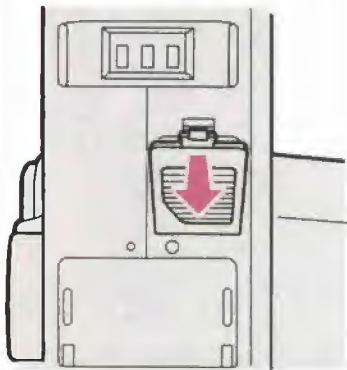


INSERTING LITHIUM BATTERY

The lithium battery is necessary for title memory and auto date function. One lithium battery lasts approx. 1 year. When lithium battery is not in place or is nearly exhausted, DATE blinks in the viewfinder, indicating that battery replacement is necessary.

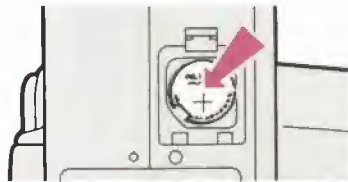


- 1 Remove battery compartment cover on back of VM-E708.**



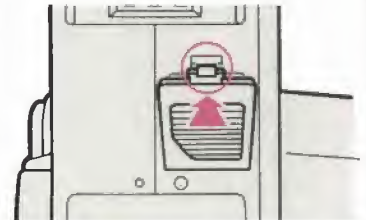
- 2 Insert new lithium battery with plus (+) side facing out.**

- Position battery into slot on bottom left, then push in place.



- 3 Replace battery compartment cover.**

- Make sure cover fastens properly (snaps into place).



- When replacing used battery, first remove it by pushing up on clip in upper right, battery then pops out. Insert new battery.

Warning: The battery used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 100°C or incinerate. Replace battery with Panasonic CR2025 or Duracell DL2025B. Use of another battery may present a risk of fire or explosion.

Notes:

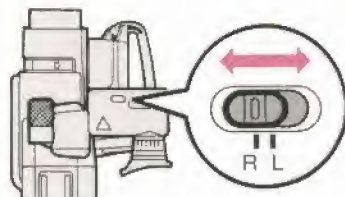
- Make sure plus (+) side is facing out of battery compartment.
- Keep battery out of children's reach. If swallowed, immediately contact physician.
- To ensure proper contact, wipe battery with clean, dry cloth before use.
- Do not pick up battery using tweezers or other metal tools, to avoid short circuiting.
- Do not disassemble, heat or immerse in water, to avoid risk of explosion.

CAMERA PREPARATIONS

ADJUSTING ELECTRONIC VIEWFINDER

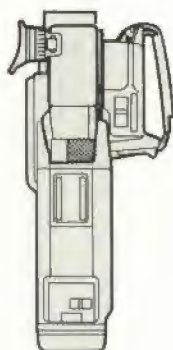
VM-E708 employs a rotating viewfinder that you can adjust for storage, right-eye use and left-eye use.

1 Set image invert switch to either R (right-eye use) or L (left-eye use).

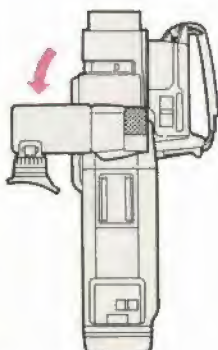


2 Rotate viewfinder as follows:

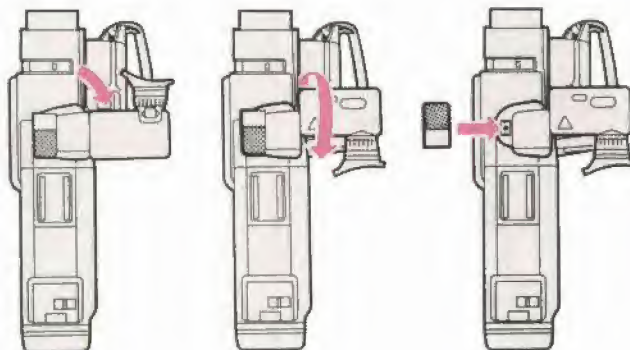
For storage



For right-eye use



For left-eye use



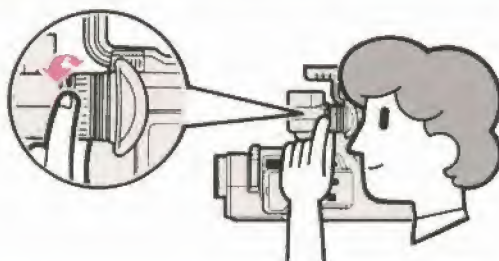
Rotate viewfinder clockwise. Then invert eyepiece to correct position. Remove microphone and replace so that it faces forward.

Notes:

- Eyepiece can be rotated. Adjust to the comfortable angle.
- Open the eyecup for easier viewing from a distance.

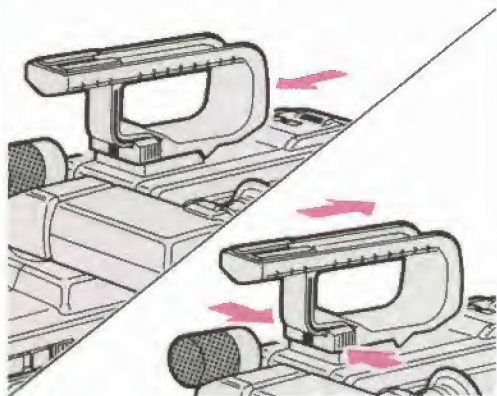
ADJUSTING DIOPTER

When using camera for the first time or when changing camera operators, adjust diopter to individual eyesight correction. Simply turn camera on and look through viewfinder, turning diopter adjustment ring until viewfinder displays are clearly visible.



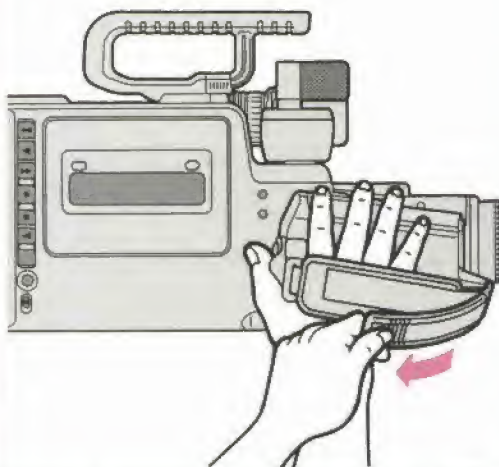
ATTACHING CARRYING HANDLE

Gently slide carrying handle into carrying handle shoe until it locks into place. Tug handle slightly to make sure it is securely fastened before lifting. To remove, push in levers on either side of carrying handle's base and slide backwards.



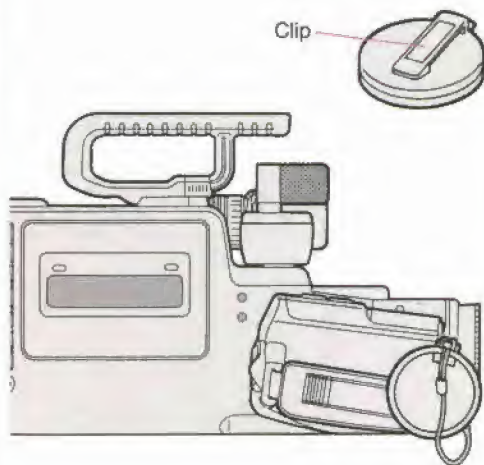
ADJUSTING GRIP BELT

While holding the grip with your right hand, tighten or loosen grip belt as necessary for a comfortable fit.



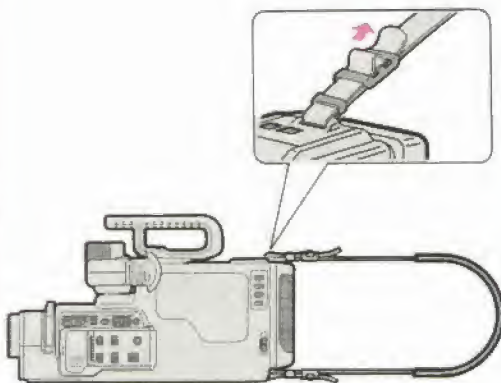
STORING LENS CAP

During recording, hook lens cap onto grip belt using clip on lens cap.



ATTACHING SHOULDER STRAP

Attach shoulder strap to shoulder strap attachment bars, and adjust it to the most comfortable length. (Before attaching shoulder strap, remove power source from camera.)



VIDEO CASSETTE

LOADING/UNLOADING VIDEO CASSETTE

Loading video cassette

1 Press operate button.

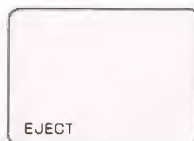
- Operate indicator lights.



Operate Button

2 Press eject button.

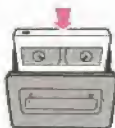
- Cassette compartment opens.



Eject Button

3 Load video cassette.

- Insert upside down with window facing out.



Cassette Compartment

4 Close cassette compartment.

- Press upper right corner of compartment to close.



Unloading video cassette

1 Press eject button.

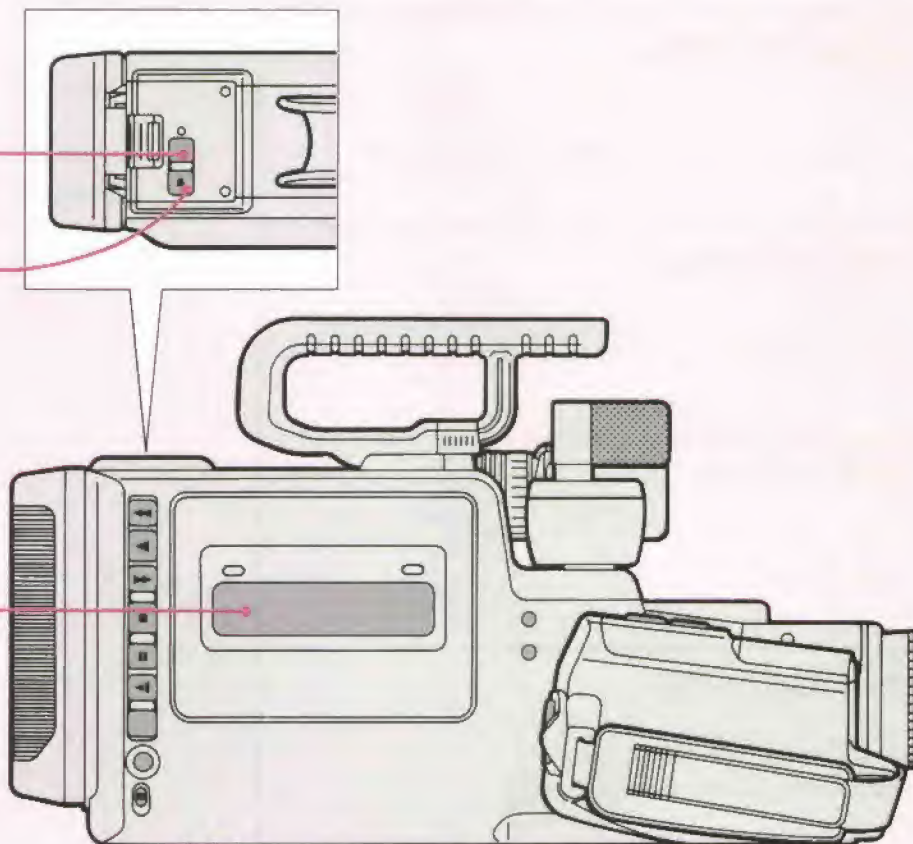
- Cassette compartment opens.



2 Unload video cassette and close cassette compartment.

- Press upper right corner of compartment to close.





Notes:

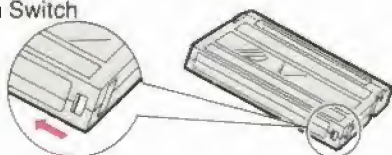
- Do not leave video cassette in camera, especially when camera will not be in use for a long time.
- There are several holes on the cassette back, which are used for transferring information. Do not cover them with tape, etc.
- Do not use video cassettes with damaged or spliced tape or ones that do not meet standards.
- Tape counter automatically resets to 0000 each time you load a video cassette.

Cassette erasure prevention switch

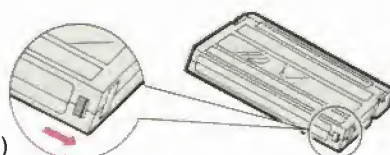
To prevent accidental erasure of recorded material, slide switch at bottom of video cassette as shown. If switch is returned to its original position, recording is possible once again.

Erasure Prevention Switch

Erasure
Prevention
(Window Red)



Recording
Possible
(Window Black)



The above description is for Canon 8mm Video Cassettes only. For other makers' video cassettes, refer to their instruction manual for erasure prevention.

CAMERA RECORDING

RECORDING PROCEDURE

1 Attach power source.

- When using a battery pack, make sure it is fully charged.



Operate Button

2 Press operate button.

- Operate indicator lights.



Eject Button

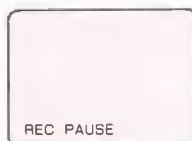
3 Press eject button.

- Cassette compartment opens.



4 Load video cassette.

- Camera goes into record pause mode.

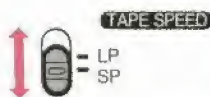


Power Source

Start/Stop Button

5 Set tape speed selector to SP or LP.

- For best picture quality, select SP.
- For double recording time, select LP.



Tape Speed Selector

6 Set camera mode selector to P.

- Green mark becomes visible on selector. Camera enters programme mode (see p.32).

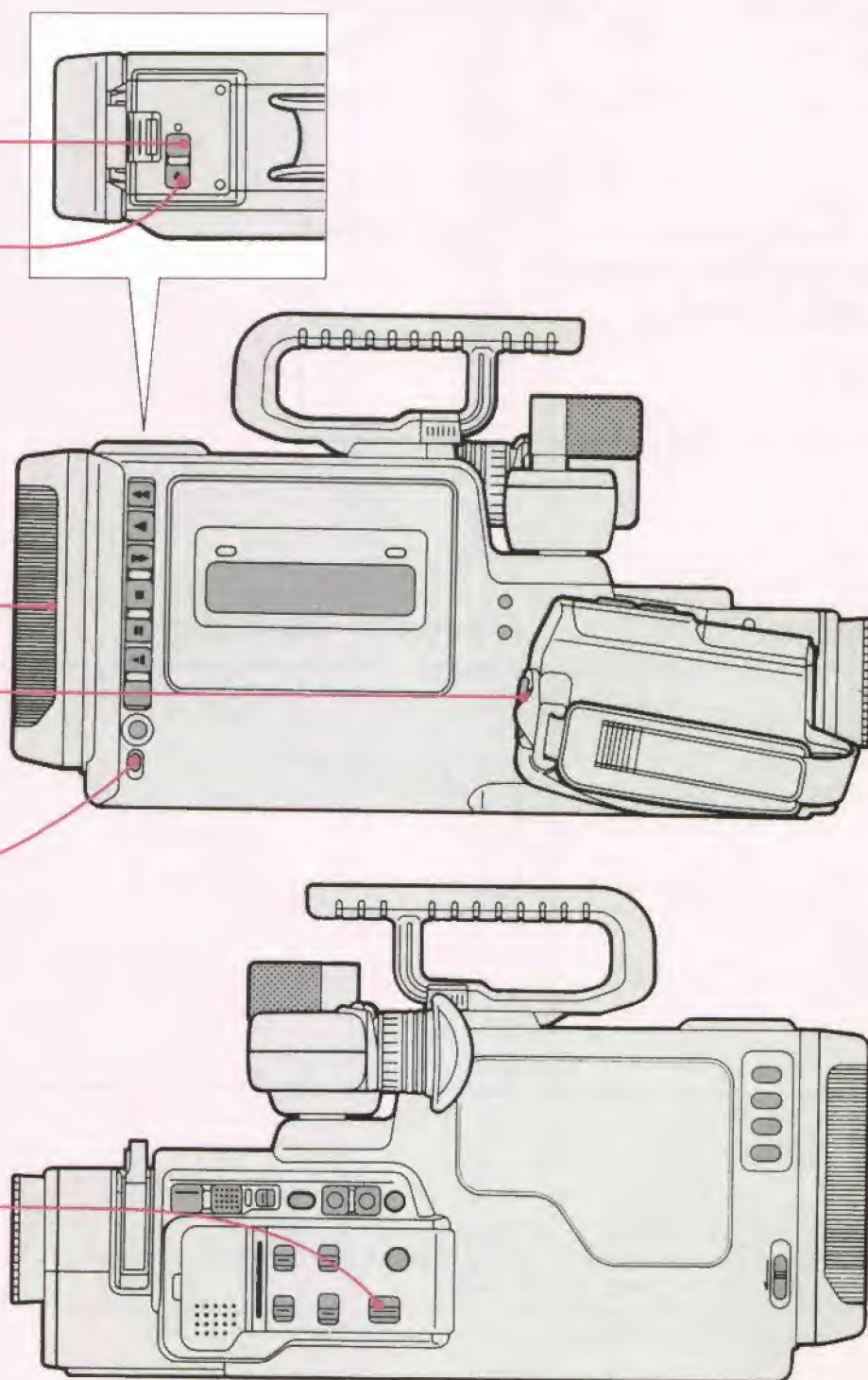


Camera Mode Selector

7 Press start/stop button.

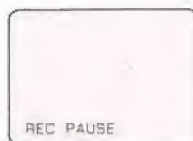
- Recording starts.





8 To stop recording temporarily, press start/stop button.

- To resume recording, press start/stop button again.



9 When recording has ended, press operate button.

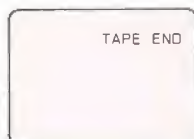
- Operate indicator turns off.



OPERATE

Tape end warning

- During recording, if remaining tape time is less than approx. 3—4 min., TAPE blinks in viewfinder.
- When tape is used completely, TAPE END appears in viewfinder.



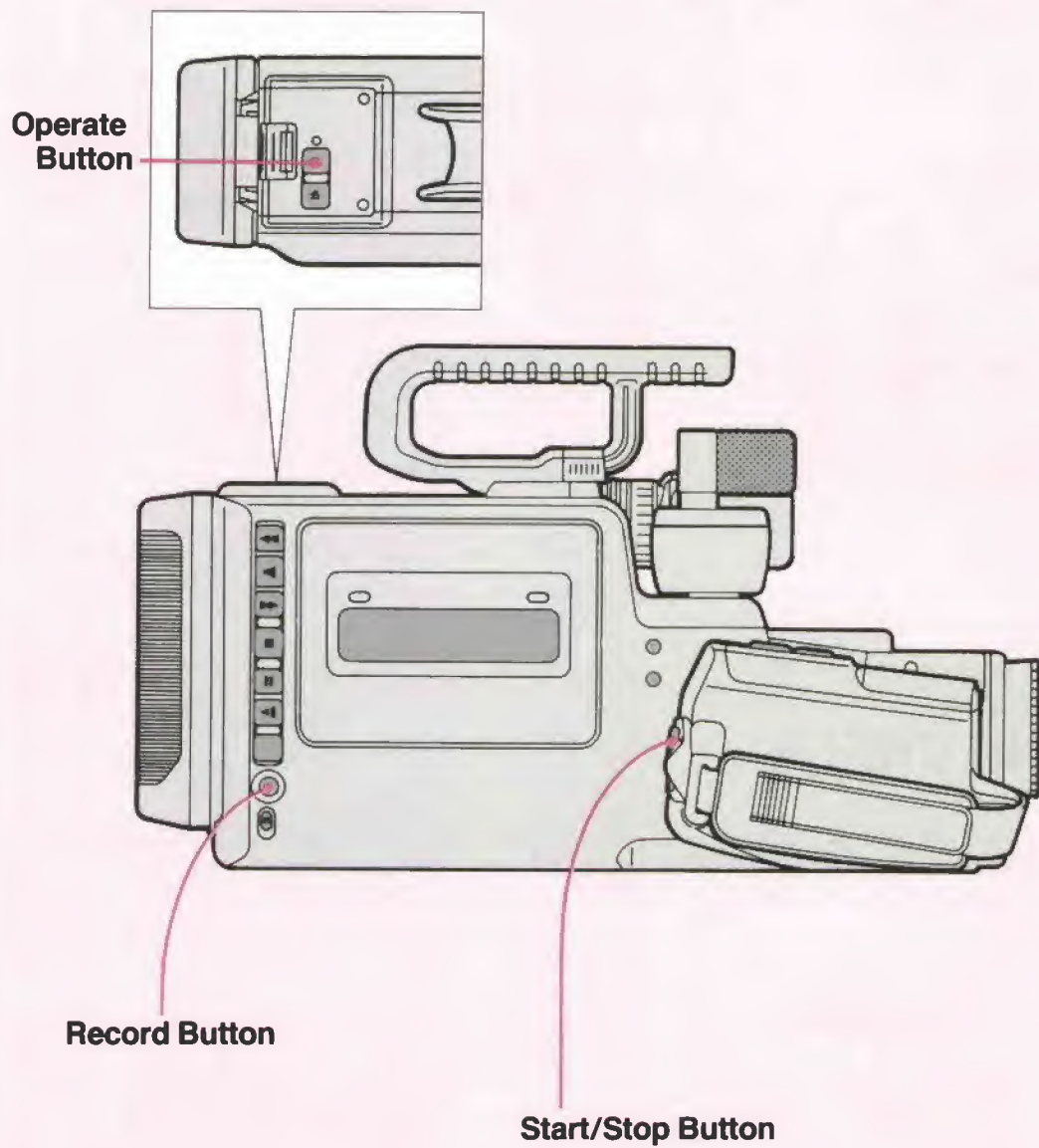
Cassette warning

- If camera is turned on and cassette is not loaded, CASSETTE blinks in viewfinder.



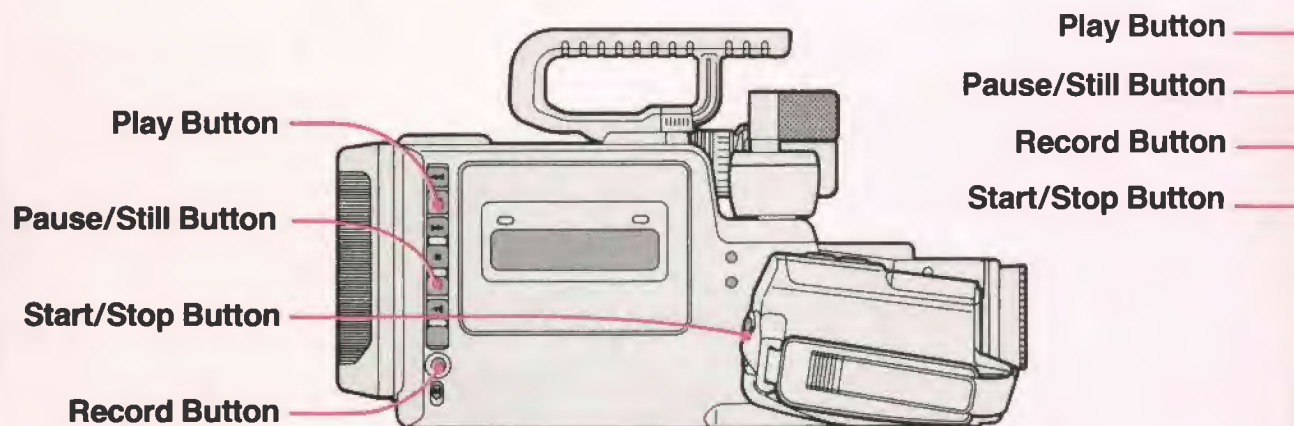
Notes:

- During battery pack use, if record pause mode continues for more than approx. 7 min., camera automatically turns off. When using other power sources, camera goes into stop mode. To resume recording from stop mode, first press record button and then press start/stop button.
- During battery pack use, if stop mode continues for more than approx. 5 min., camera automatically turns off.
- Unload video cassette from cassette compartment if camera will not be used for a long time.



ASSEMBLY EDITING

For recording on a video cassette that has been unloaded and reloaded, use assembly editing for noise-free transition.

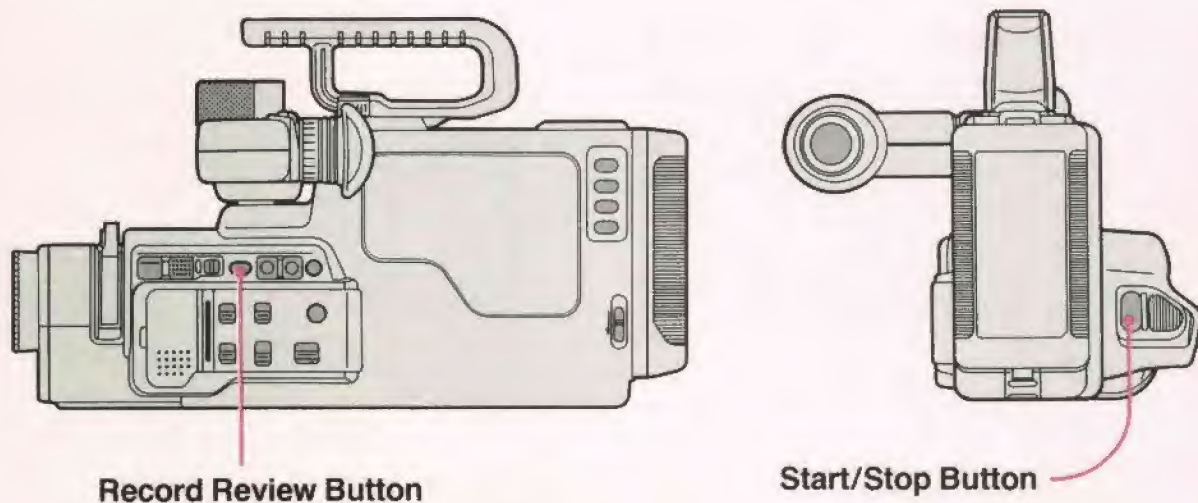


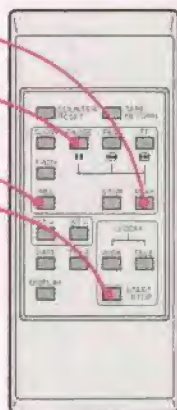
Note:

- Normally, assembly editing operates automatically, unless power source has been removed during recording or video cassette has been unloaded from camera.

RECORDING CHECK

During record pause mode, press record review button to play back the last segment of recorded scene (approx. 3 sec.) in viewfinder. Once playback is complete, VM-E708 returns to record pause mode exactly where it left off. When recording resumes, assembly editing operates automatically to ensure noise-free recording.





1 Find recording start point, using playback functions (see pp.25—28).

PLAY



2 At recording start point, press pause/still button.

- Camera goes into still playback mode.

PAUSE/
STILL

3 Press record button, then press start/stop button.

- Recording starts.



1 During recording, press start/stop button.

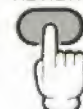
- Camera goes into record pause mode.



2 Press record review button.

- Scene plays back in viewfinder.

REVIEW



3 Press start/stop button to resume recording.

- Recording starts from exact point where it left off.

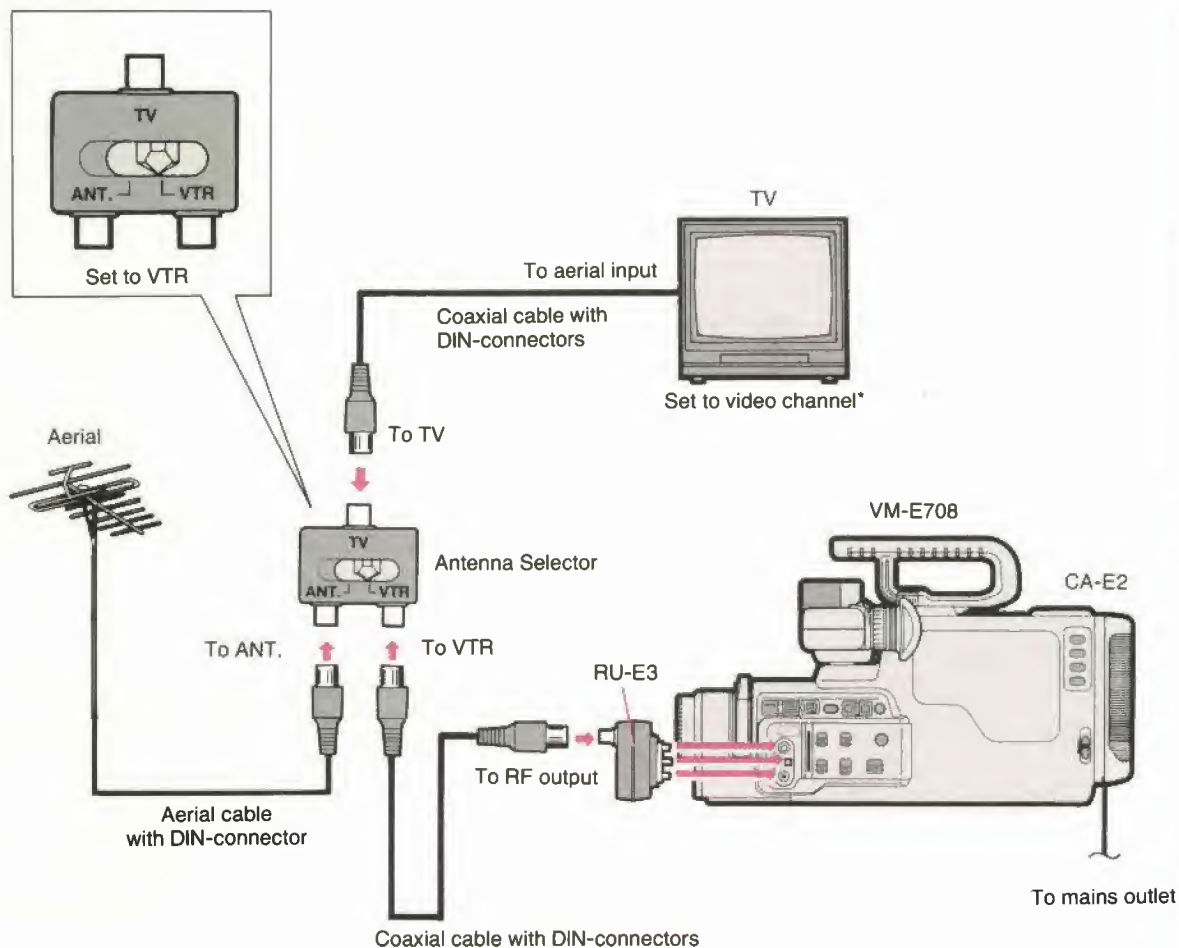


PLAYBACK

CONNECTION PROCEDURE

To play back the recorded video cassette on TV, you need RF Unit or C-150 AV Cable. CB-E2 Car Battery Adapter is

Using TV without audio/video inputs



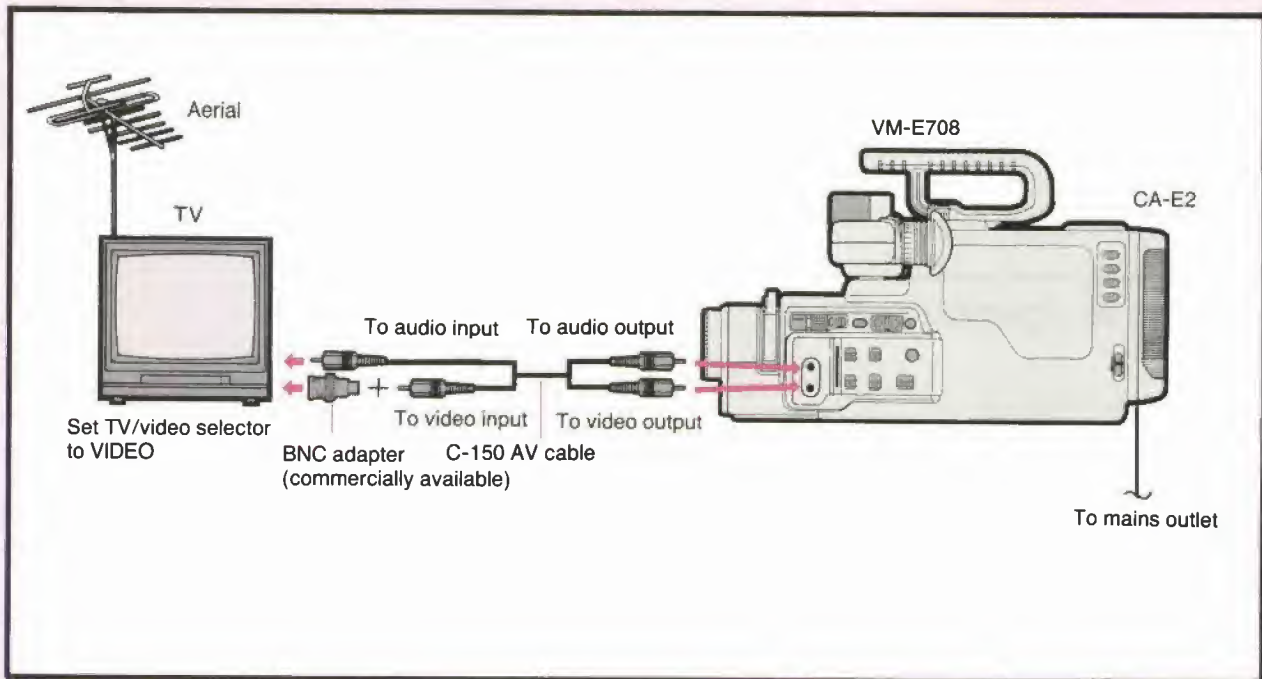
* See p.26

Note for High Frequency Feedback

- High frequency feedback can occur if VM-E708 microphone is close to TV speaker. In this case, lower TV volume or remove microphone from VM-E708.

the CA-E2 Compact Power Adapter as well as the RU-E3 also available as a power source.

Using TV with audio/video inputs

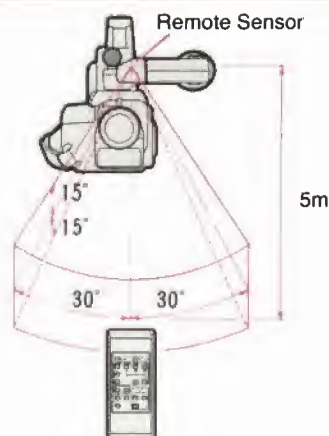


WIRELESS CONTROLLER

WL-E708 wireless controller allows normal and special operation of VM-E708 from a distance.

Aim WL-E708 at remote sensor of VM-E708 and press appropriate button. Remote sensor lights when it receives signal.

- Operate WL-E708 within 30° angle on either side and 15° angle above and below the VM-E708 remote sensor, at a distance of up to 5m.
- By positioning rotating viewfinder, remote sensor can accept signals from many directions.



Notes:

- When remote sensor receives signal from wireless controller, autofocus function stops temporarily.
- Because wireless controller uses infrared beams to transmit signals, sunlight or fluorescent light on remote sensor may shorten operating distance.

PLAYBACK PROCEDURE

Preparations

- Set TV channel and RU-E3's video channel selector to video channel (see p.26).
- When using TV with audio/video inputs, set TV's TV/video selector to VIDEO.



Operate Button

1 Press operate button.

- Operate indicator lights.



Fast Forward/
Search Button

2 Load video cassette.

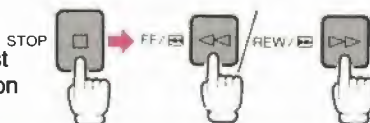
- Camera goes into record pause mode.
- If cassette erasure prevention switch is in non-recordable position, camera goes into stop mode.



Play Button

3 Find playback start point.

- First press stop button, then press fast forward/search or rewind/review button to find start point.



Rewind/Review Button

4 Press play button.

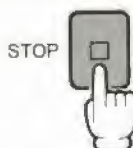
- Tape speed is automatically selected.

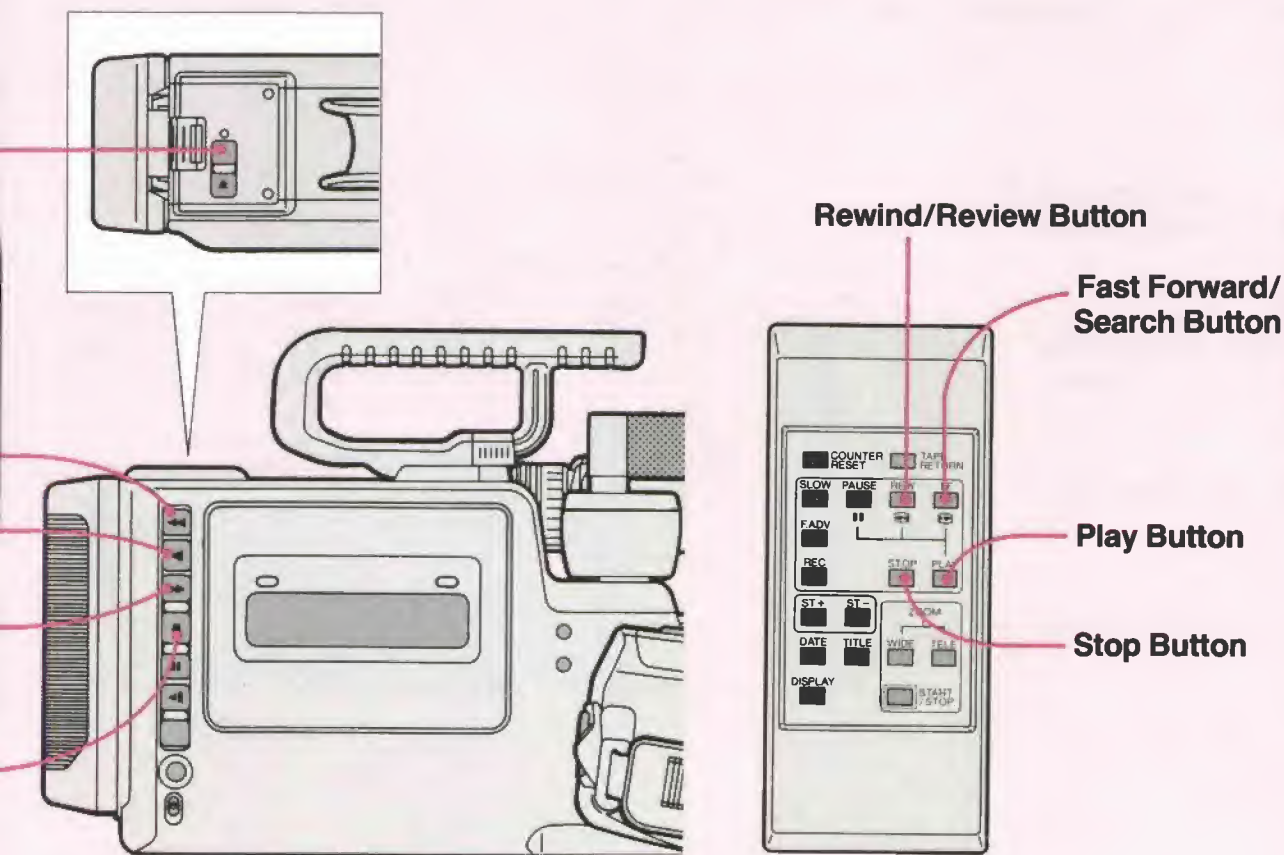


Stop Button

5 To stop playback, press stop button.

- When tape comes to an end during playback, camera automatically rewinds.

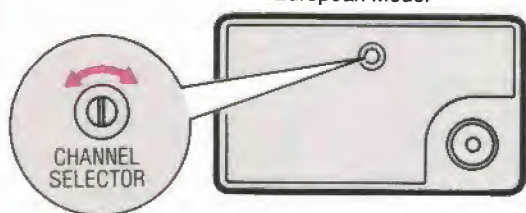




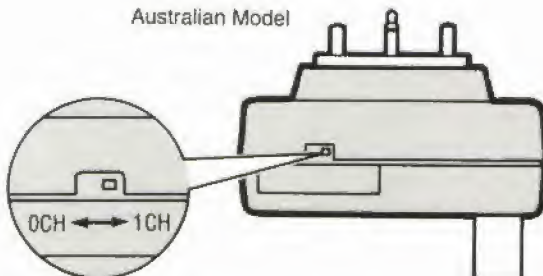
Selecting the video channel

The video channel is the channel in your area not occupied by a broadcasting station that may be used for playback and monitoring (channel 30—39 selectable, European model; channel 0 or 1 selectable, Australian model). If you are using a TV without audio/video inputs, set both the TV and the RF unit to the video channel for playback. To set the video channel on the RU-E3, use a small flathead screwdriver.

European Model

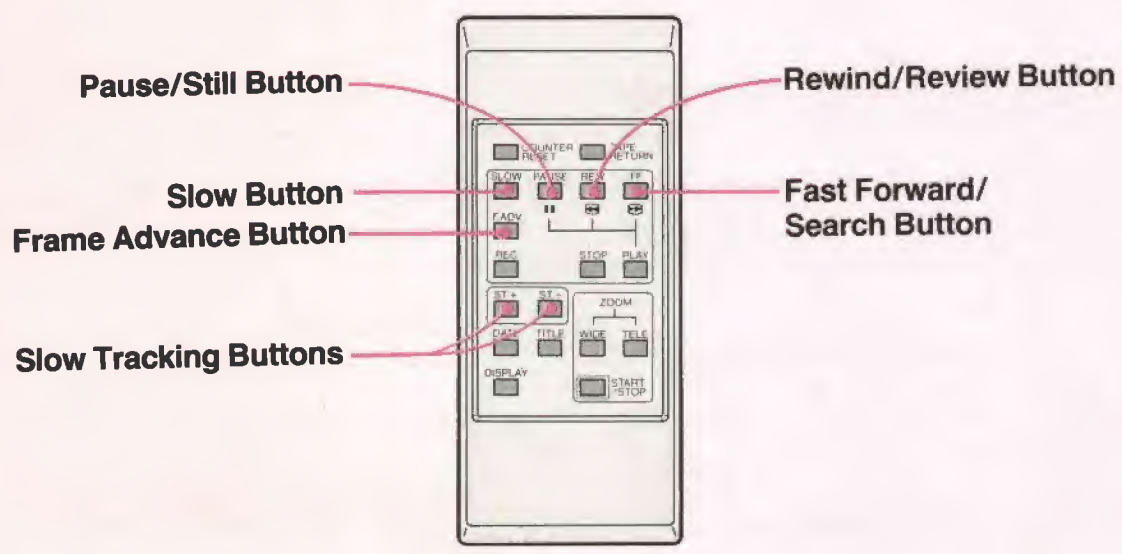
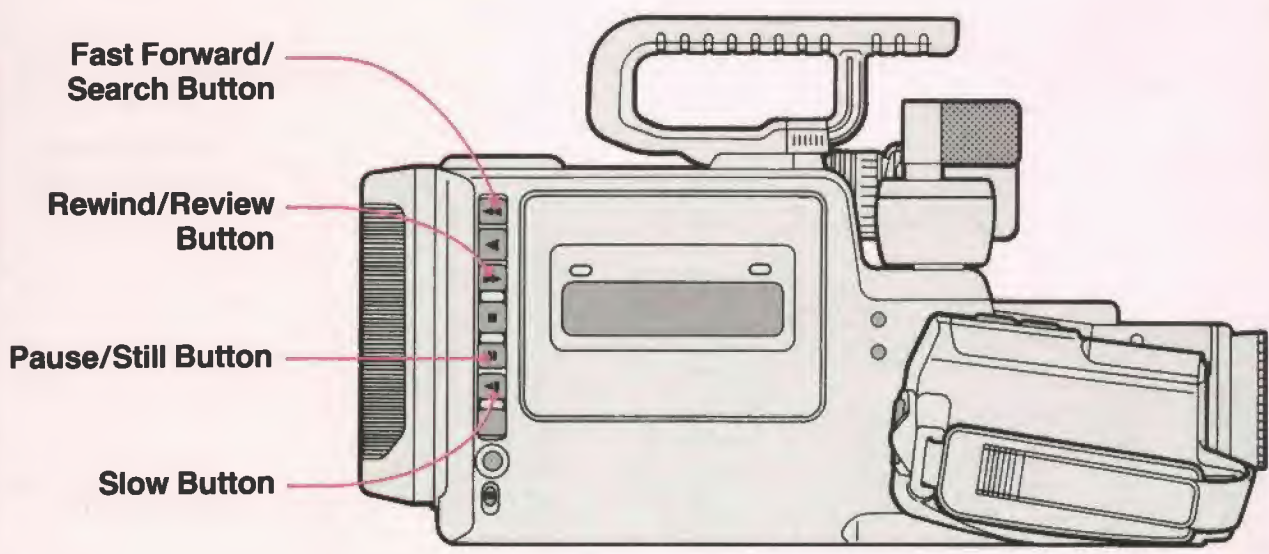


Australian Model



SPECIAL PLAYBACK

VM-E708 has, in addition to normal playback, special playback features that you control by pressing buttons on the camera or by using the wireless controller. (Frame advance can be operated using the wireless controller only.)



Fast forward playback

Press and hold fast forward/search button during playback to view scenes at 7-times normal speed.

- Camera goes into normal playback mode when button is released.



Rewind playback

Press and hold rewind/review button during playback to view scenes in reverse at 7-times normal speed.

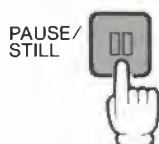
- Camera goes into normal playback mode when button is released.



Still playback

Press pause/still button during normal or slow-motion playback to freeze picture.

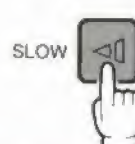
- To cancel still playback, press pause/still button again or press play button.



Slow-motion playback

Press slow button during normal or still playback to view scenes at 1/10 normal speed.

- To resume normal playback, press play button.
- If slow-motion playback continues for more than approx. 30 sec., normal playback resumes automatically.



Frame Advance

During still playback, press frame advance button on wireless controller to view scenes one frame at a time.

- Press and hold frame advance button to view frames at continuous intervals.



Slow Tracking Control

If noise appears in the picture during still or slow-motion playback, place camera into slow-motion playback mode and then press slow tracking buttons (ST+, ST-) on the wireless controller until noise disappears from the screen.

- Noise may not disappear completely, depending on the tape.

If vertical picture jitter occurs during still playback, press slow tracking buttons to eliminate jitter.

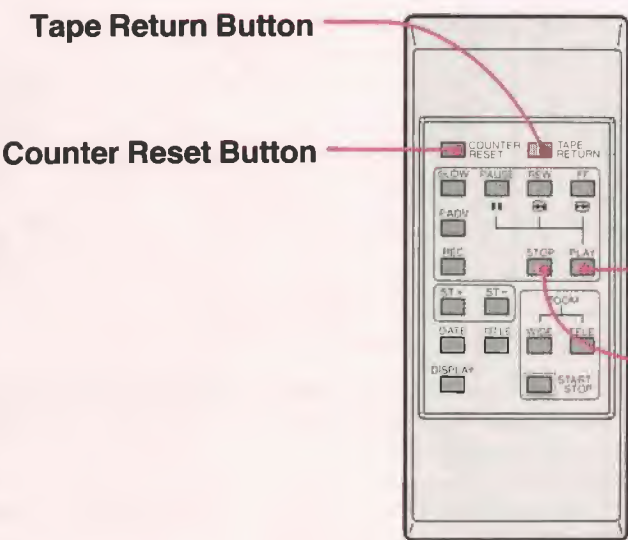
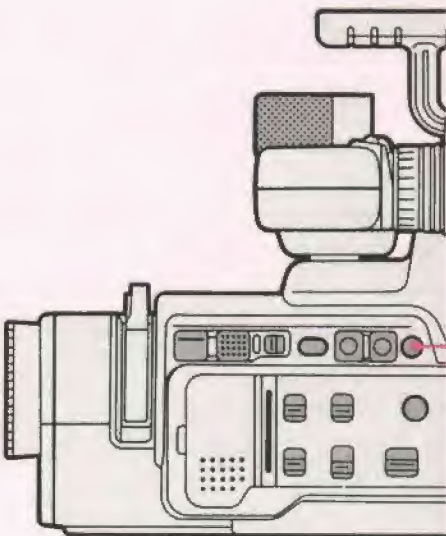
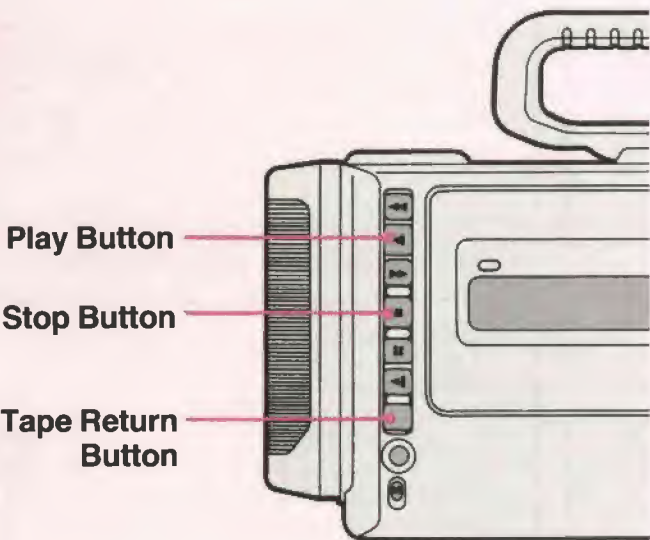


Notes:

- Audio portion of tape cannot be heard during special playback.
- Noise bars appear during fast forward/rewind playback. This is normal.
- During fast forward or rewind playback in SP mode, noise bars will be much wider than for a tape recorded in LP, and they may roll across picture; picture may also appear black-and-white.
- If still playback continues for more than approx. 7 min., camera automatically goes into stop mode.
- During battery pack use, if stop mode continues for more than approx. 5 min., camera automatically turns off.

TAPE RETURN

Use tape return to quickly locate a desired segment of tape.



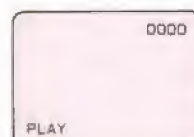
Play Button

Stop Button

1 During playback, when a scene appears that you want to watch again later, press counter reset button.

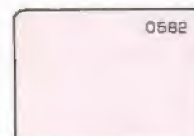
- Tape counter resets to 0000.

C.RESET



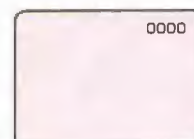
2 When playback finishes, press stop button.

STOP



3 Press tape return button.

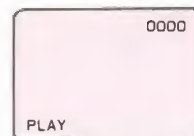
- Tape rewinds and stops automatically when counter reading reaches 0000.

TAPE
RETURN

4 Press play button.

- Playback starts approximately from the spot where you pressed counter reset button.

PLAY



Counter Reset Button

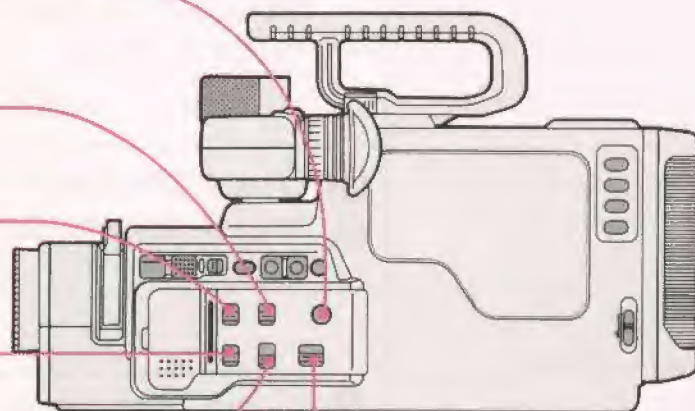
Notes:

- Tape counter reading is not exact. Use it as a guide.
- Tape return does not function when initial counter reading is near 0000.
- During tape return, only stop and operate buttons function.
- Tape counter automatically resets to 0000 each time you load a video cassette.

SPECIAL TECHNIQUES

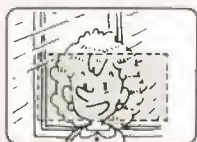
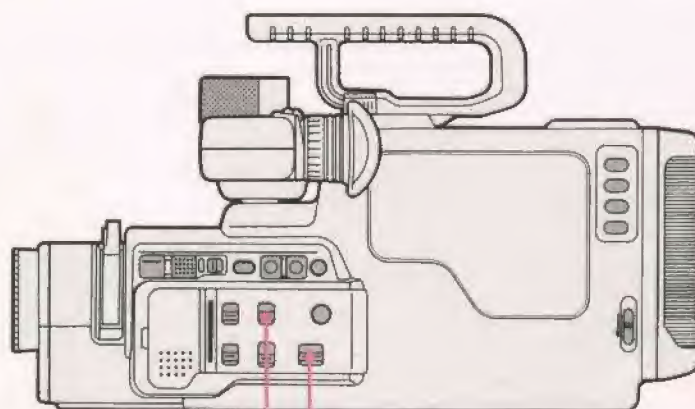
CAMERA MODE SELECTOR

VM-E708 offers many special features to choose from, but you also have the option to set the camera to automatic (programme mode) for easy operation.

White Balance Select Button**Metering Selector****Focus Selector****Sepia Switch****High Speed Shutter Selector****Camera Mode Selector**

METERING

VM-E708 employs 2 metering systems: average and centre-field. Select the system appropriate to the subject/ location for optimum recording even in difficult lighting situations.

Metering Area**Average Metering****Centre-field Metering****Camera Mode Selector****Metering Selector**

Programme mode

Set camera mode selector to P. Green mark becomes visible on selector.

- Functions marked by a green dot on camera will operate as follows, regardless of switch position:

Focus Selector A (Auto)
Sepia Switch OFF
Metering Selector AVERAGE
High Speed Shutter Selector OFF
White Balance Select Button A (Auto)



Manual mode

Set camera mode selector to M. Set other switches and selectors on camera as needed.

- When changing from P mode to M mode, white balance function remains on Auto.



Average metering

Set camera mode selector to P. Camera automatically goes into average metering mode.

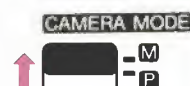
- When camera mode selector is set to M, set metering selector to AVERAGE.



Centre-field metering

When the subject is obscured by too much background or foreground light, select centre-field metering. Exposure automatically adjusts to subject located in centre of viewfinder.

1 Set camera mode selector to M.



2 Set metering selector to CENTER.



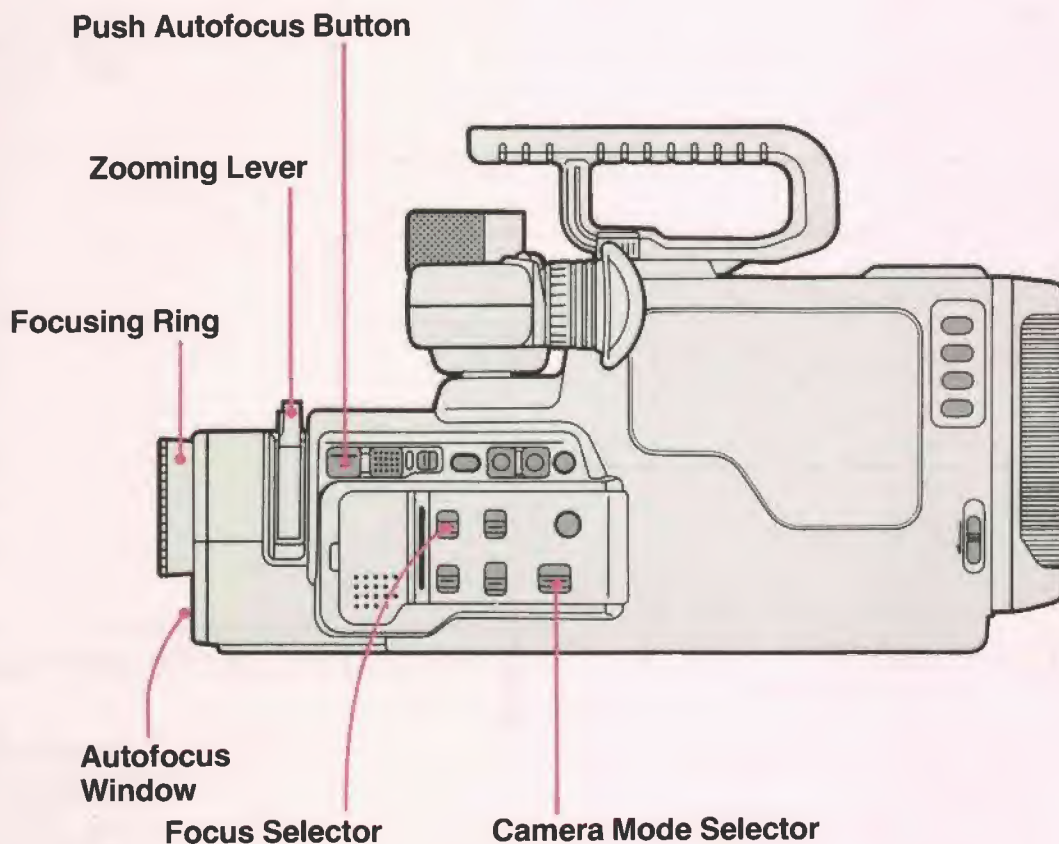
CENTER

3 Use zoom function to properly frame subject as desired. Then shoot as you normally would.



FOCUSING

Three focusing systems are available to suit your needs: autofocus, manual focus and push autofocus. To change focusing from autofocus to other focusing systems, set camera mode selector to M. Use autofocus in normal situations.



Notes:

- Be sure not to cover autofocus window with your hand, fingers, etc. during recording.
- Do not touch focusing ring during autofocus.
- Aim camera so that subject is centred in viewfinder during autofocus use.
- The autofocus mechanism focuses subjects located up to approx. 11m away. If subject is farther away, focus is locked at infinity. When shooting bright subjects outdoors during the daytime, the lens aperture is small, so accurate focus is easily maintained. However, if conditions are cloudy or if you are shooting dark subjects (night scenes, etc.), use manual focusing.

Autofocus

Set camera mode selector to P. Focus automatically adjusts to subject located in centre of viewfinder.

- When camera mode selector is set to M, set focus selector to A.



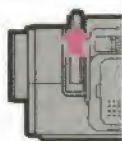
Manual focus

1 Set focus selector to M.

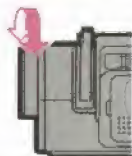
- Make sure camera mode selector is set to M.



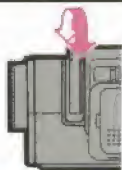
2 Rotate zooming lever to telephoto end.



3 Focus subject with focusing ring while watching through viewfinder.



4 Use zoom function to properly frame subject as desired.



Push autofocus

During manual focusing, use push autofocus if you need to adjust quickly to a subject. Press and hold push autofocus button for temporary autofocus capability while in manual focus mode. Release push autofocus button to resume manual focusing.



Subjects not suitable for autofocus mechanism

In the following instances, autofocus may not work well, and manual focus is recommended for best results:

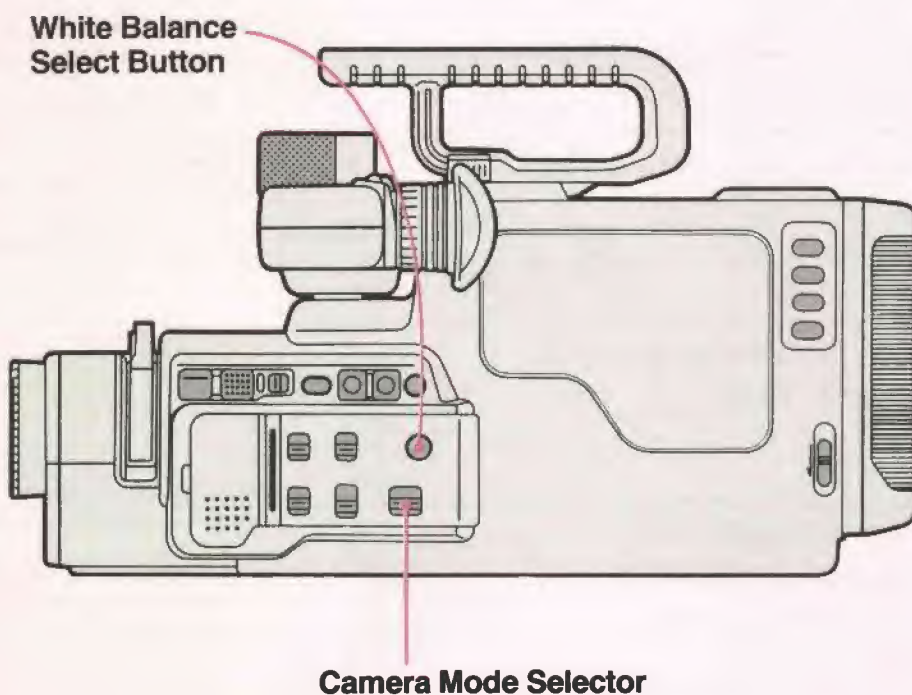
- Subjects with very glossy or shiny surfaces (e.g. exterior of a car)
- Subjects with little or no reflection (e.g. dark clothes, dark hair, water surface)
- Scenes that cause a strong contrast between right and left halves of screen
- Subjects with an object in front of them (e.g. animal in a cage)
- Subjects behind glass

Notes for autofocus:

- VM-E708 focuses subject by emitting and receiving an infrared beam at its autofocus window. Subject approx. 3m away is focused precisely at centre of viewfinder. For subject distances less than 3m, camera focus point is slightly lower and to the right in viewfinder; for distances greater than 3m, camera focus point is slightly higher and to the left.
- If VM-E708 is near other products that use infrared beams (e.g. wireless controller for the VTR), autofocus may malfunction. To avoid this malfunction, autofocus function stops temporarily when the remote sensor detects an infrared signal.

WHITE BALANCE

The human eye can perceive a white object as white regardless of lighting conditions. Cameras, however, need adjustment to suit each lighting situation. White balance is the adjustment made to make white subjects look white and to obtain natural colours in a recording. VM-E708 has 2 systems for white balance adjustment: auto and lock.



Notes:

- White balance lock also works without using a white object. Set zooming lever to wide angle end (8.5mm) and press white balance select button. White balance adjusts automatically for that scene (not suitable for scene with single colour or macro recording).
- White balance lock clears automatically when camera is turned off or when playback is activated.
- If light source changes during white balance lock, set white balance again.
- If you require more accurate colour balance, use white balance lock even under normal lighting conditions.
- White balance lock is available only when camera mode selector is set to M.

Auto white balance

When camera is turned on, auto white balance is set automatically. Natural colour is achieved for both indoor and outdoor scenes.

Subjects not suitable for auto white balance

In the following situations, auto white balance does not function well; use white balance lock:

- Subjects of only one colour (e.g. sky, sea, forest)
- Subjects for recording macro shots (e.g. close-ups of flowers)

White balance lock

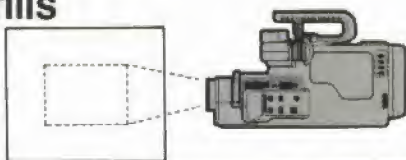
Use white balance lock when you shoot subjects not suitable for auto white balance (see right).

1 Set camera mode selector to M.

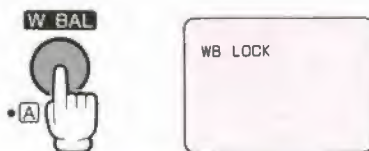


2 Point camera lens at a white object so that it completely fills viewfinder.

- Zooming lever should be set to telephoto end (68mm).



3 Press and release white balance select button.



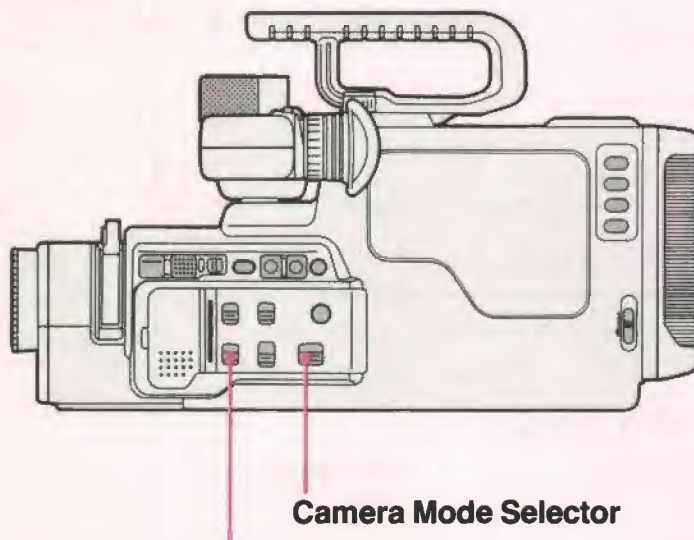
4 Record as you normally would.

- To resume auto white balance, press white balance select button again.



SEPIA EFFECT

Record your scenes in sepia for a nostalgic effect.

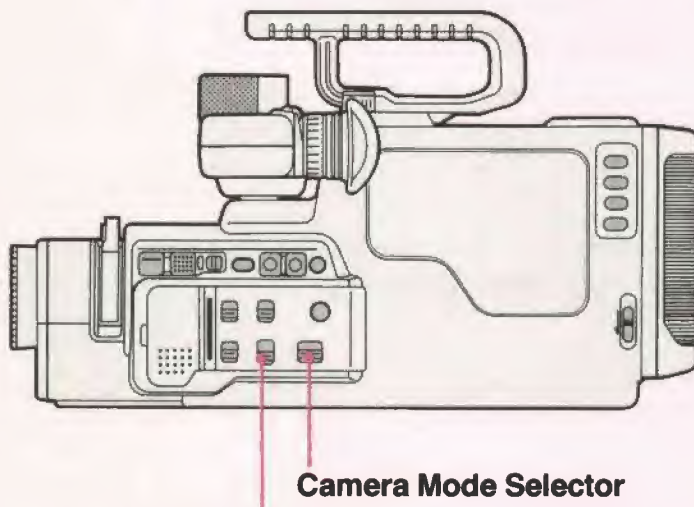


Sepia Switch

Camera Mode Selector

HIGH SPEED SHUTTER

To clearly capture sports sequences or other quick-moving subjects, use the high speed shutter function. VM-E708 has 2 high speed shutter speeds: 1/1000th and 1/500th second. Select the correct shutter speed according to subject speed and brightness.



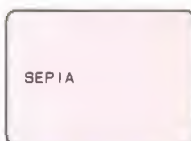
High Speed Shutter Selector

Camera Mode Selector

1 Set camera mode selector to M.



2 Set sepia switch to ON.



3 Record as you normally would.

- When recording is finished, be sure to set sepia switch to OFF.



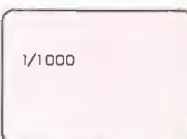
Notes:

- A regularly recorded (full-colour) scene cannot be played back in sepia.
- A scene recorded in sepia cannot be played back in full colour.
- Sepia effect is not apparent in viewfinder or on a black-and-white TV. Use a colour TV or colour monitor for viewing.
- When camera mode selector is set to P, sepia function is automatically set to OFF, regardless of switch position.

1 Set camera mode selector to M.



2 Set high speed shutter selector to either 1/1000 or 1/500 according to subject.



3 Record as you normally would.

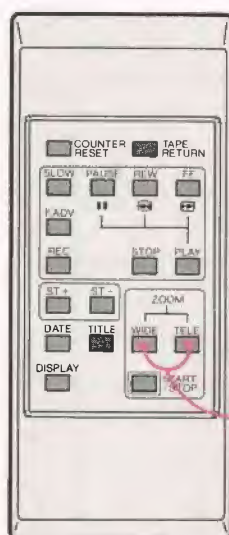
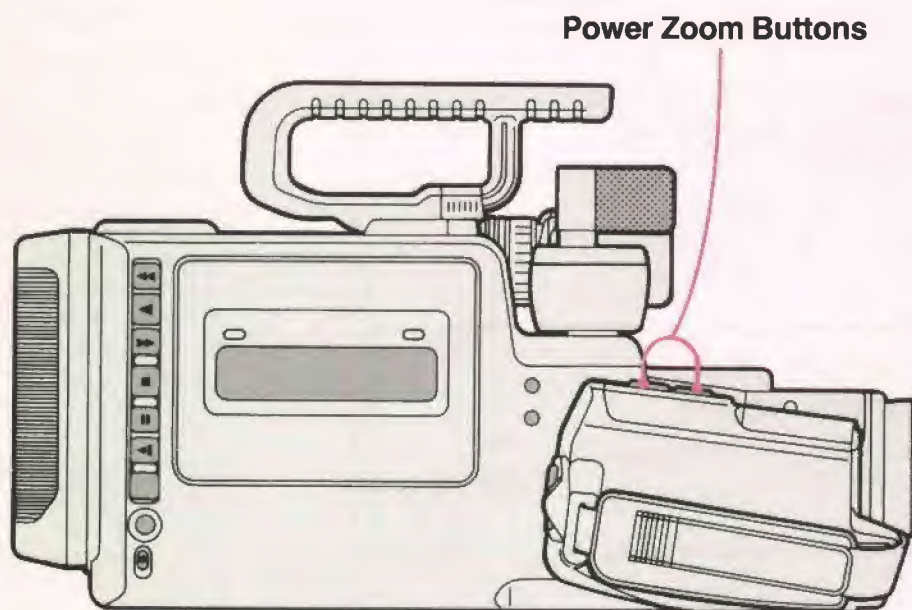


Notes:

- High speed shutter function is not available in dark lighting conditions or under fluorescent lighting. Use this function outdoors where lighting is bright.
- Use high speed shutter function in conjunction with still playback or slow-motion playback modes to view sports action and details clearly.
- During normal playback, scenes shot with a high speed shutter will appear somewhat jerky.
- When camera mode selector is set to P, high speed shutter function is automatically set to OFF, regardless of switch position.

ZOOMING

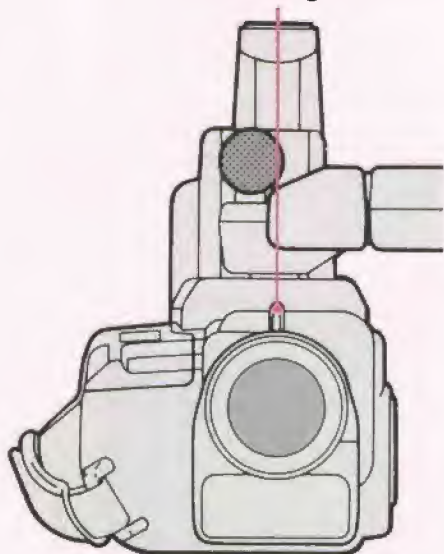
VM-E708 has 3 zooming methods: power zoom, manual zoom and wireless zoom. Normally, use power zoom for a smooth effect.



Notes:

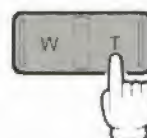
- When shooting in the telephoto range, even the slightest hand jitter will appear in recording. For better results, use a tripod.
- Zooming in excess may make recorded scenes appear too busy. Use zoom feature moderately and effectively.

Zooming Lever



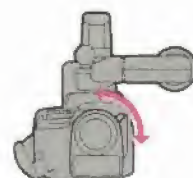
Power zoom

Press power zoom buttons on grip. When you press W, camera gradually zooms out to wide angle. When you press T, camera gradually zooms in to telephoto.



Manual zoom

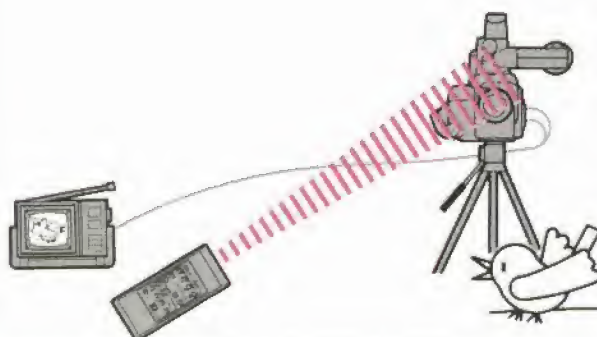
Simply rotate zooming ring using zooming lever.



Wireless zoom

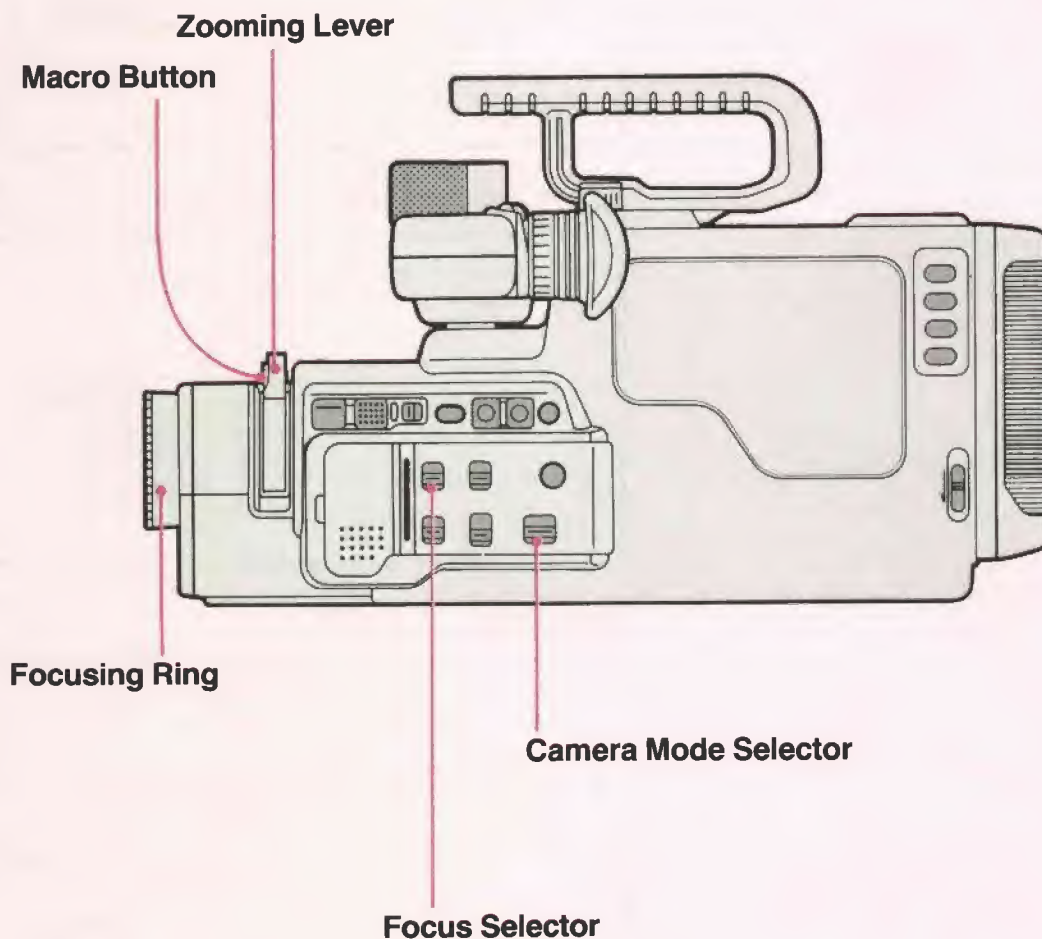
With the wireless controller you can control zoom operation from a distance.

- Mount camera on tripod.
- Use a monitor TV during wireless zooming to view shots.
- For details, see p.24.



MACRO RECORDING

When you use the macro recording feature, you can capture small subjects such as flowers, magnified to full screen. VM-E708 has 2 macro recording features: wide macro and tele-macro.



Notes:

- To change subject image size, move camera forward or backward slightly and fine focus again.
- Use a tripod for more stable recording capability.
- Be sure to provide adequate lighting, particularly during wide macro recording.
- During tele-macro, if you rotate zooming lever out of telephoto end, vignetting may occur, causing picture edge to become dark and blurry.

Wide macro

You can approach the subject as close as 4mm, analyzing rich detail while enjoying a full-screen image and greater perspective.

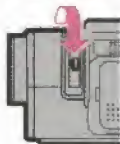
- 1 Set camera mode selector to M.



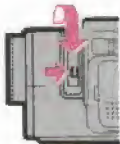
- 2 Set focus selector to M.



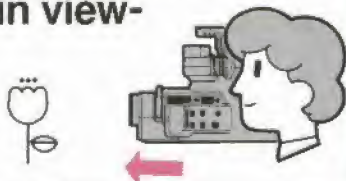
- 3 Rotate zooming lever to wide angle end (8.5mm).



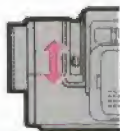
- 4 Press and hold macro button on zooming lever and move lever into wide macro range.



- 5 Approach subject until it focuses in viewfinder.



- 6 Fine focus, using zooming lever within wide macro range.



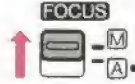
Tele-macro

You can record macro shots from a distance. Use tele-macro for scenes that are hard to approach, e.g. a butterfly on a flower.

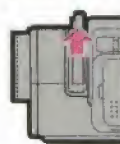
- 1 Set camera mode selector to M.



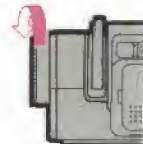
- 2 Set focus selector to M.



- 3 Rotate zooming lever to telephoto end (68mm).

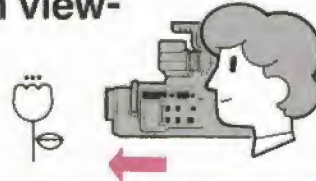


- 4 Rotate focusing ring to tele-macro range.

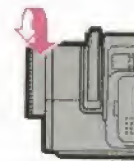


- 5 Approach subject until it focuses in viewfinder.

- Recording range for tele-macro is 0.6—1.2m from subject.



- 6 Fine focus, using focusing ring within tele-macro range.



FADE

Fade in

Scene gradually appears from a completely blank screen.

1 Place camera in record pause mode.



2 Select fade colour by using white/black fade selector.

- For white fade, select W. For black fade, select B.



3 Press and hold fade button until scene disappears completely in viewfinder.



4 Press start/stop button to start recording. Then release fade button.

- Scene appears gradually.



Start/Stop Button

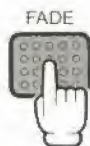
White/Black
Fade Selector

Fade out

Scene gradually disappears, fading into a blank screen.

1 During recording, press and hold fade button.

- Picture disappears gradually.



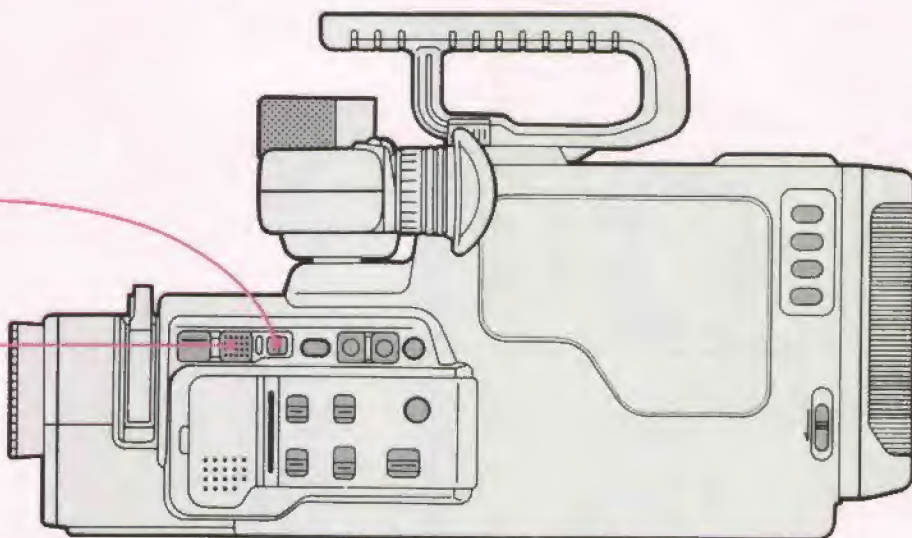
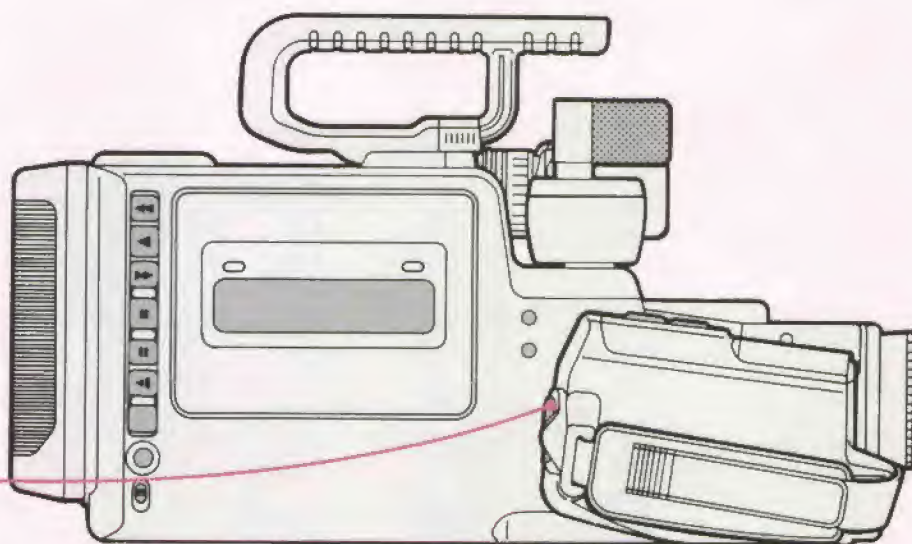
2 Once scene has disappeared completely, press start/stop button.

- Camera goes into record pause mode.



Fade Button

Use the fade effect to make scenes gradually disappear or reappear in smooth transition. VM-E708 has 2 fade colours: white and black.

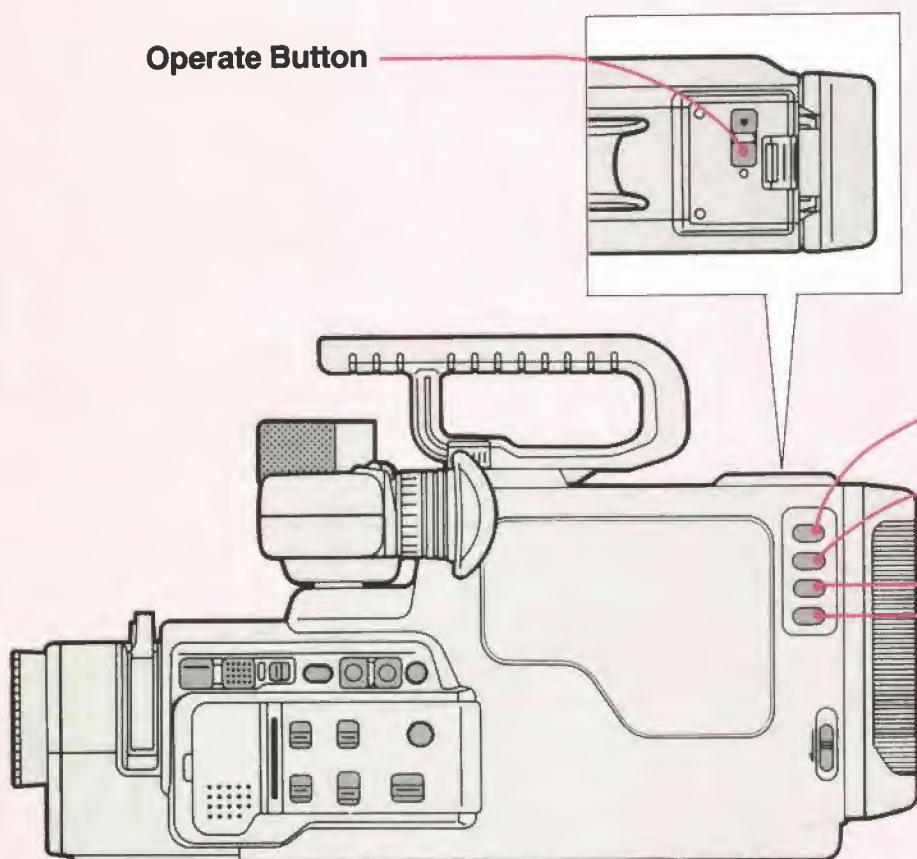


Notes:

- Sound fades along with image.
- Title, date and time do not fade.
- Colour for fade in and fade out can be selected separately.

BUILT-IN TITLE FUNCTION

VM-E708 has a built-in title function. Superimpose up to 32 characters (2 lines, 16 characters each) on a scene and record. Once input, the title is memorized. Both title and date can be superimposed and recorded at the same time.



Notes:

- You cannot create a title during camera recording.
- As long as lithium battery power continues (approx. 1 year), title is kept in memory.
- Title is cleared from memory when lithium battery is replaced.

Creating title

Example: Constructing the title HAWAII

1 Press operate button.

- Operate indicator lights.



2 Press mode button. The following display appears in viewfinder:

- Blinking dot or character indicates cursor position.



3 Press shift button to move cursor to desired position.

- Press once to move cursor one character to the right. Press and hold to move cursor continuously.
- Cursor does not move backwards.

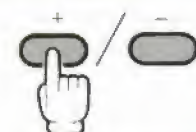


4 Select character (in this case H) using +/- buttons.

- Press + once to view one character at a time. Press and hold to scan characters quickly.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
 □&*!?:;"'-.9876543210□

- Press + button to view characters in order shown above. Press - button to view characters in reverse order.
- A space character is provided between Z and 0 and between & and A.
When the space character is chosen, a blinking dot appears in viewfinder, but a space will appear during actual recording and playback.
- Press both + and - buttons simultaneously to erase all characters at and to right of cursor.

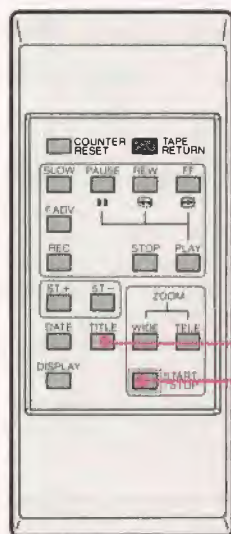
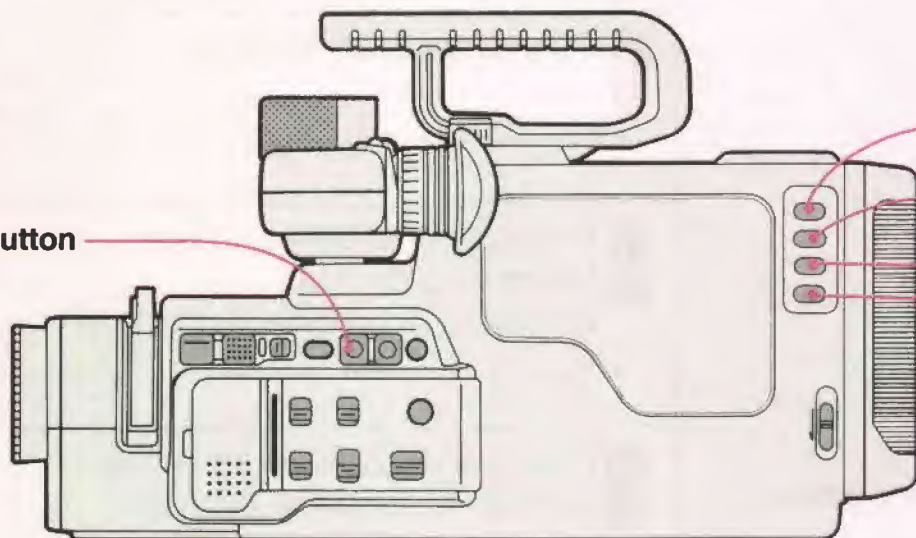


Mode Button

Shift Button

+/- Buttons

Title Button



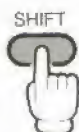
Title Button
Start/Stop Button

Mode Button

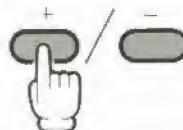
Shift Button

+/- Buttons

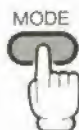
5 After locating character H, press shift button to move cursor one character to the right.



6 Input other characters in same manner.



7 When title HAWAII is completed, press mode button.



Recording title

1 During record pause mode, press title button.

- Title appears in viewfinder.



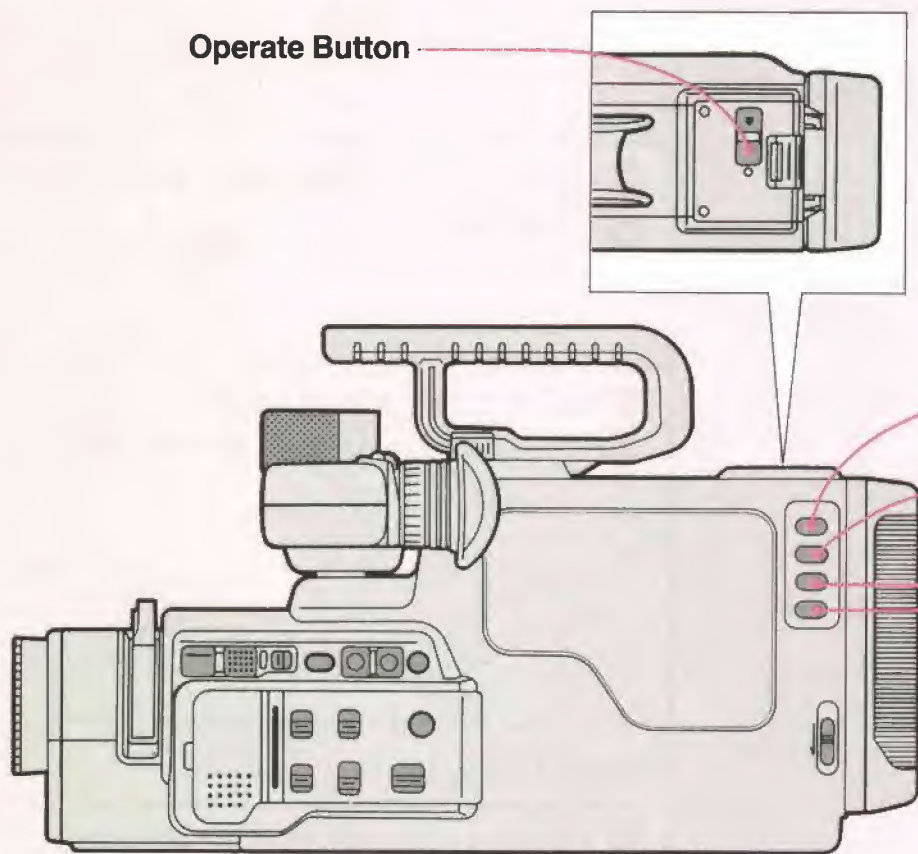
2 Press start/stop button to begin recording.

- Title is recorded with scene.
- To cancel display, press title button again.



AUTO DATE & TIME

Using the auto date and time function, superimpose date-month-year or hour-minute information onto a scene. Both date (or time) and title can be superimposed and recorded at the same time.



Notes:

- You cannot adjust date and time during camera recording.
- As long as lithium battery power continues (approx. 1 year), auto date and time function continues.
- Auto date and time clears when lithium battery is replaced.
- Partial changes in date and time are not possible. To make any adjustments perform again steps 2—10.

Adjusting date & time

When you use VM-E708 for the first time, or after replacing lithium battery, adjust auto date & time.

Example: Setting 5 May 1989, 2:35 p.m.

1 Press operate button.

- Operate indicator lights.



2 Press and hold mode button for approx. 5 sec.

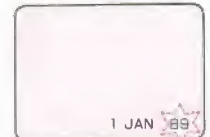
- Year display ('88) blinks.



3 Press +/- buttons to adjust year display.

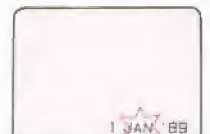
- Press once to view display one year at a time. Press and hold to scan years quickly.

'88 → '89 ... '01 → '02 ... '87



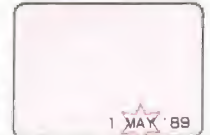
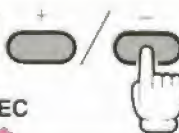
4 Once year is set, press shift button.

- Month display (JAN) blinks.



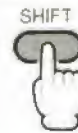
5 Press +/- buttons to adjust month display.

JAN → FEB ... DEC



6 Once month is set, press shift button.

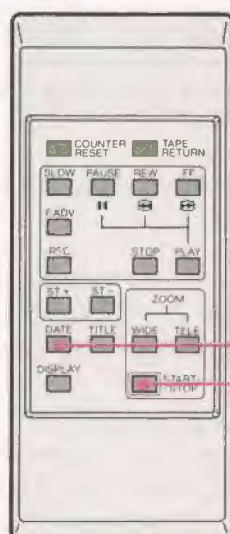
- Date display (1) blinks.



Mode Button

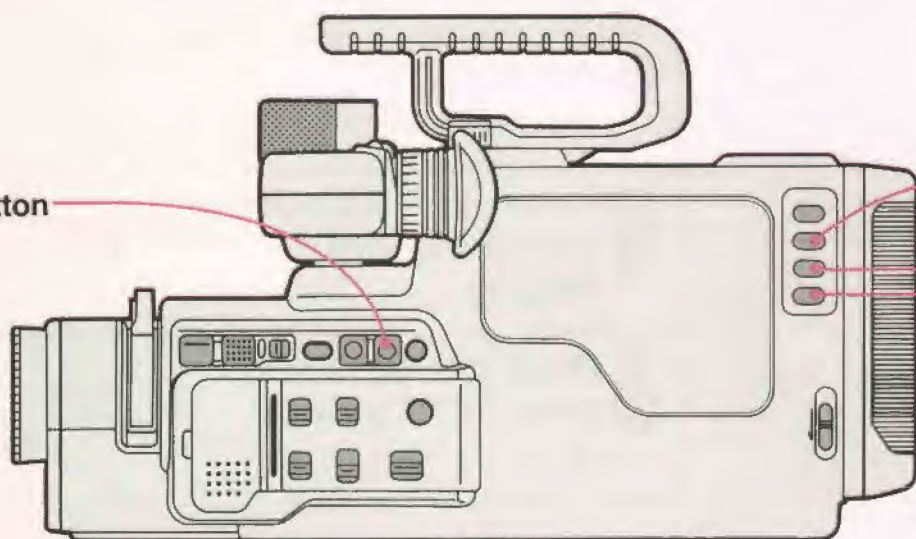
Shift Button

+/- Buttons



Date Button
Start/Stop Button

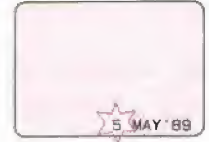
Date Button



Don't stop here:
Date and time will
enter camera's
memory only if
steps 2—10 are
completed.

7 Press +/— buttons to adjust date display.

1 — 2 ... 31



8 Once date is set, press shift button.

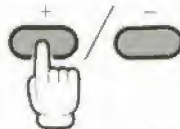
- Hour-minute display appears in viewfinder. Hour display blinks.



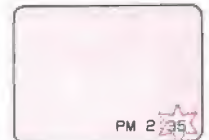
9 Input hour and minute displays in same manner.

- Hour displays include AM or PM and will change automatically.

AM12 — AM1 ... AM11
PM11 ... PM1 — PM12

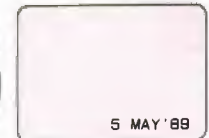
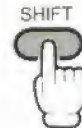


00 — 01 ... 59



10 Once minute is set, press shift button.

- Date-month-year display appears, time begins.



Shift Button

+/- Buttons

Recording date & time

1 During record pause mode, press date button.

- Date-month-year appears on viewfinder. To display hour-minute, press date button twice more.



2 Press start/stop button to begin recording.

- Date-month-year or hour-minute is recorded with scene.
- To cancel display, press date button once again.



MIXING FUNCTION

VM-E708 has audio mixing capability, using a headphone stereo.

1 Connect VM-E708 to headphone stereo.

- Connect mixing jack on VM-E708 to headphone jack on headphone stereo, using commercially available cable with stereo mini-plugs (for line connection).

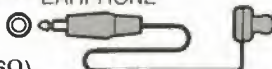
MIXING



2 Connect commercially available earphone to earphone jack on VM-E708.

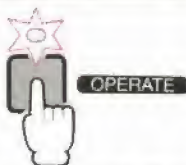
- Use earphone with low impedance (16Ω).

EARPHONE



3 Press operate button.

- Operate indicator lights.



4 Adjust audio balance.

- Using earphone, monitor both music from headphone stereo and sound from VM-E708 microphone. Adjust volume control on headphone stereo accordingly.



5 Record as you normally would.

- Mixed audio is recorded in monaural.



Operate Button

Earphone Jack

Mixing Jack

Start/Stop Button

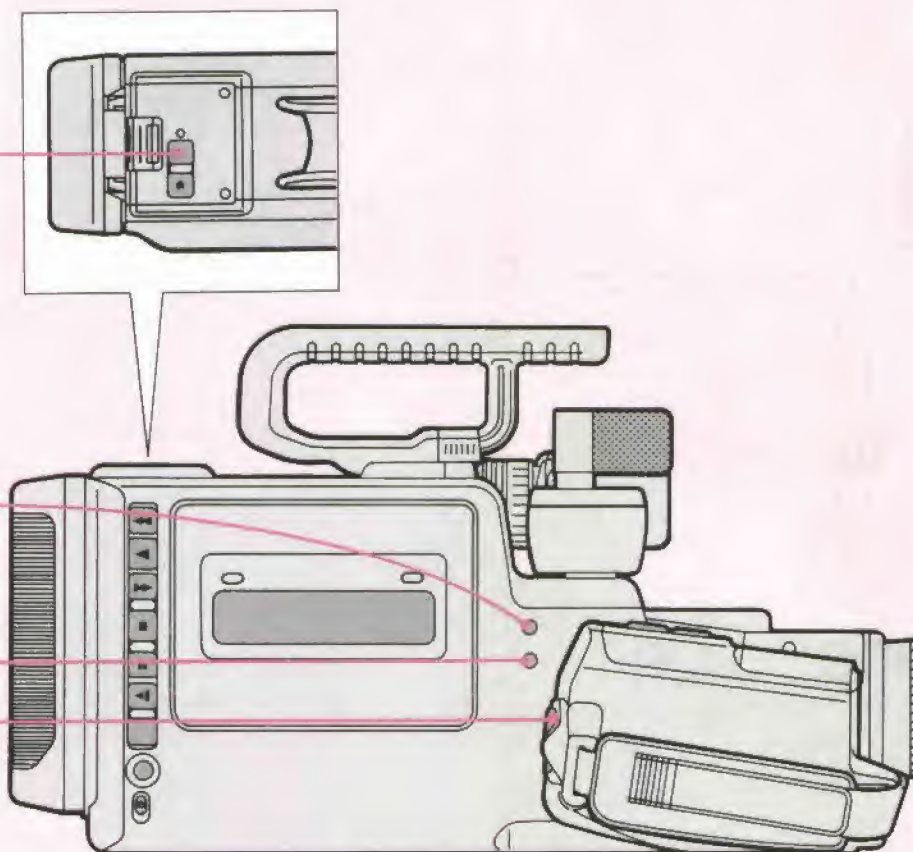
EXTERNAL MICROPHONES

MM-100

Mixing Microphone

The MM-100 lets you record music from a headphone stereo during regular recording for a unique background music effect.

- Control mixing balance by using balance control on MM-100.
- For details, refer to MM-100 instruction manual.

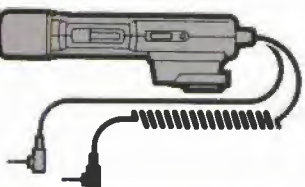


By connecting optional external microphones to VM-E708, you can enjoy various audio recording effects. First disconnect VM-E708's microphone, then replace with external microphone in mic terminal.

DM-200 Super-directional Microphone

Record distant or specific sounds effectively using the DM-200.

- Recording level cannot be adjusted.
- For details, refer to DM-200 instruction manual.



MB-100 Microphone Boom

When recording at quiet locations, use the MB-100 to raise the microphone out of range of unwanted camera noise.

- For details, refer to MB-100 instruction manual.

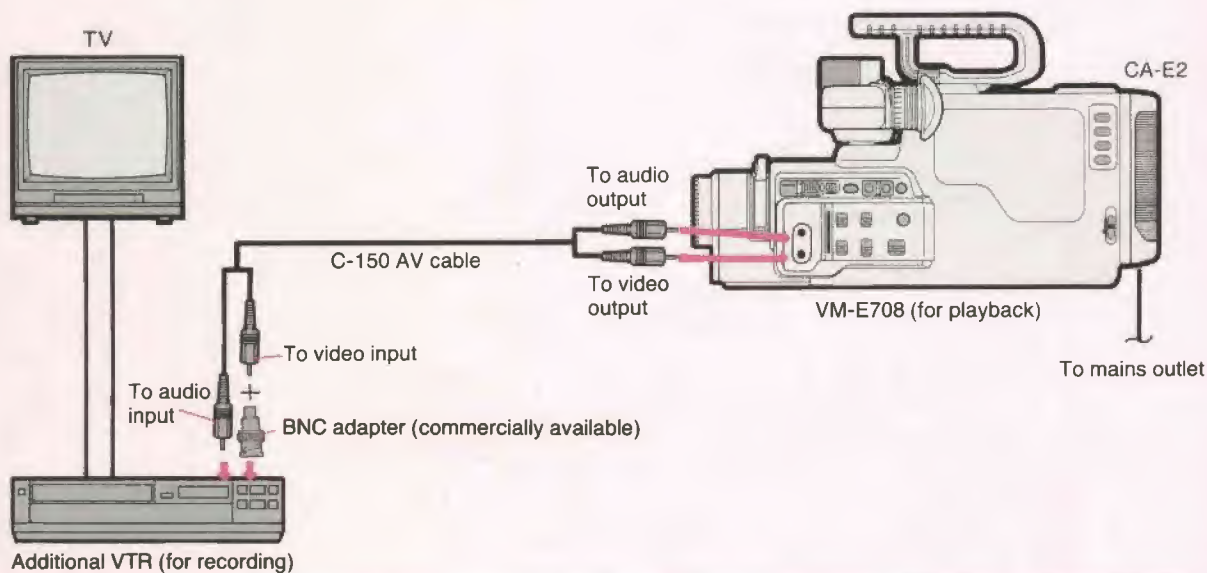


EDITING ONTO ADDITIONAL VTR

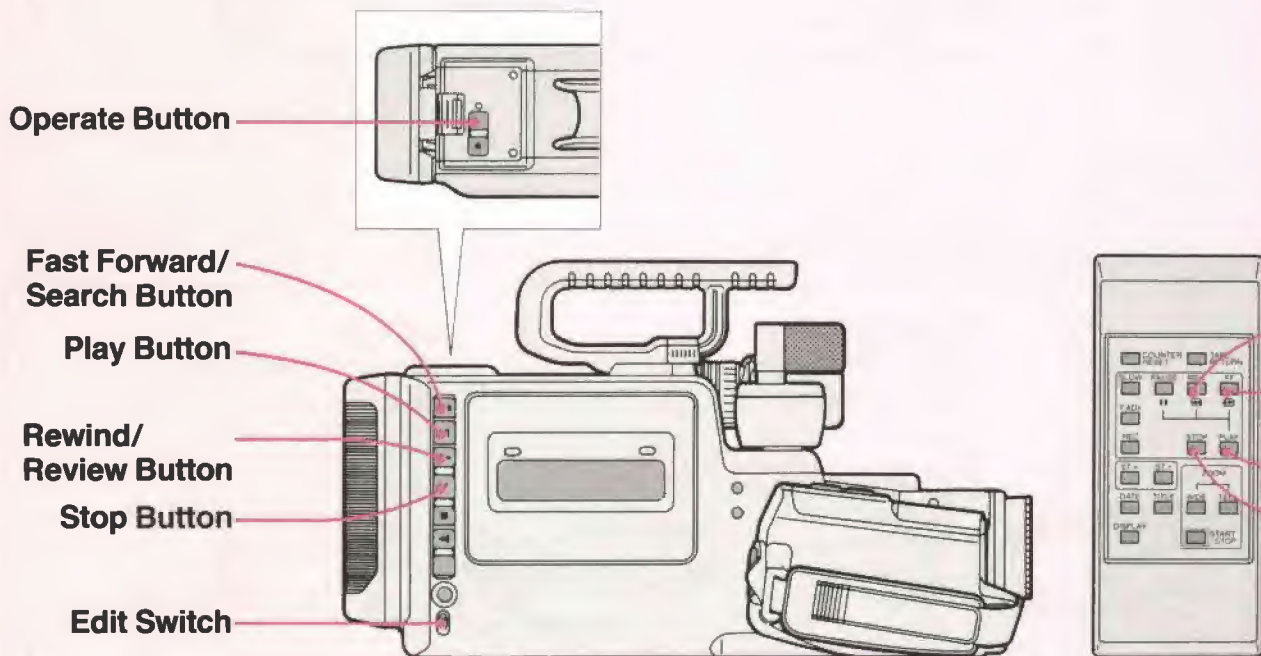
Use VM-E708 as a playback VTR.

CONNECTION PROCEDURE

In addition to VM-E708, use CA-E2 Compact Power Adapter and C-150 AV Cable.



EDITING PROCEDURE



Preparations

TV:

Turn TV on, set to video channel or set TV/video selector to VIDEO.

Additional VTR:

Turn VTR on, load recordable video cassette.

- For details, refer to VTR instruction manual.

VM-E708:

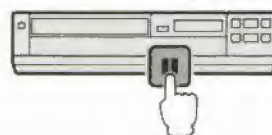
Turn camera on. Load video cassette for playback. Press stop button. Set edit switch to ON.



- 1 On VM-E708, locate point on tape slightly ahead of editing start point (scene to record).

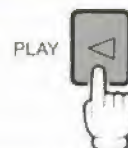


- 2 Set additional VTR into record pause mode.



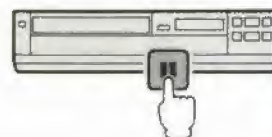
- 3 Press play button on VM-E708.

- Check playback picture on TV screen.



- 4 At editing start point, release additional VTR from record pause mode.

- Recording begins on additional VTR.



- 5 To end editing, press stop buttons on both VM-E708 and additional VTR.



Rewind/
Review Button

Fast Forward/
Search Button

Play Button

Stop Button

Edit switch

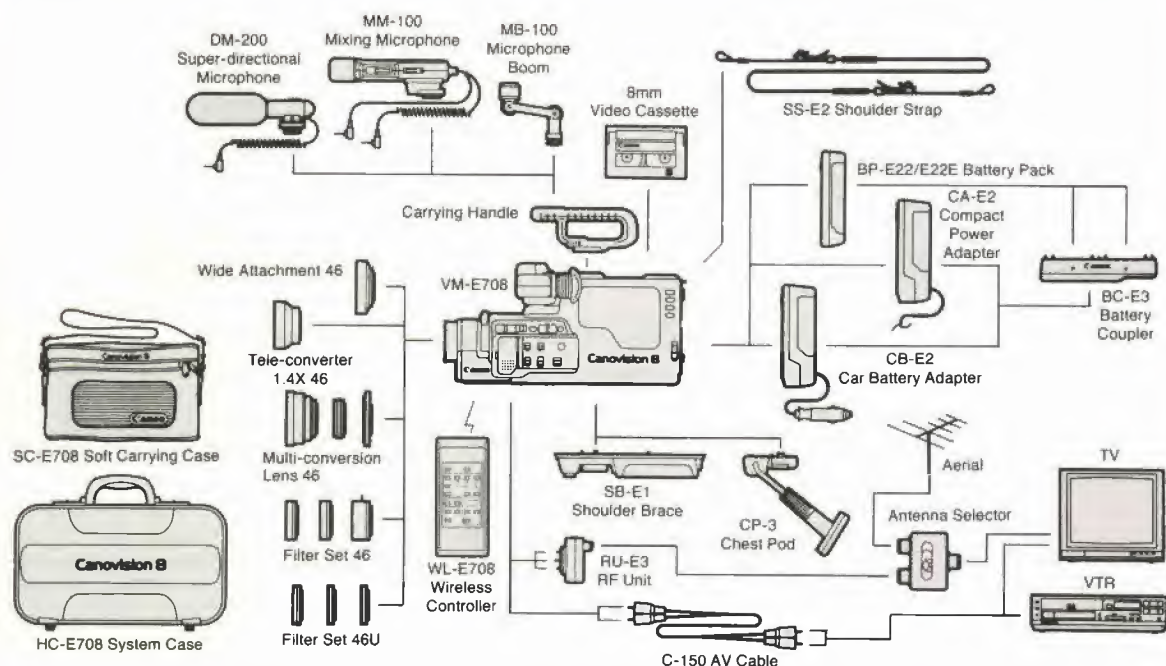
To minimise loss of picture quality, set edit switch to ON only when VM-E708 is used as a playback VTR during editing.

- Normally, keep edit switch set to OFF.



CANON 8mm VIDEO SYSTEM

VM-E708 SYSTEM CHART

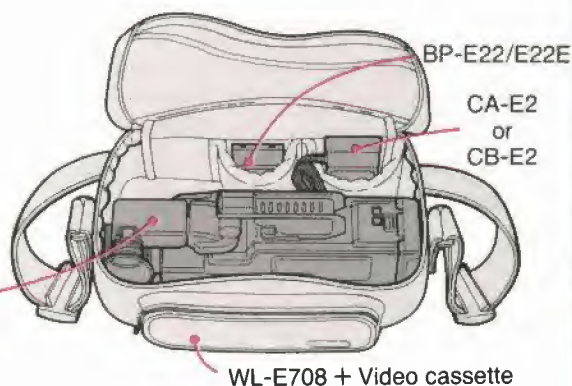


SC-E708 SOFT CARRYING CASE



The optional SC-E708 Soft Carrying Case is lightweight protection for the VM-E708.

The SC-E708 can carry the following:



HC-E708 SYSTEM CASE

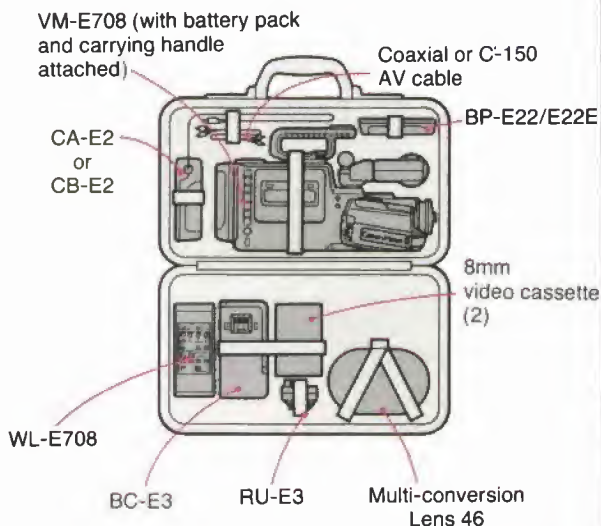
The optional HC-E708 System Case safely stores and helps protect the VM-E708 and its accessories during transportation and storage.



Notes:

- Open case with "UP" sticker pointing upward.
- Do not leave case in area of extreme heat.
- Do not expose case to strong vibrations or shock.
- Do not place heavy objects on top of case.
- The HC-E708 has two keys, including one spare key.

The HC-E708 properly stores the following:

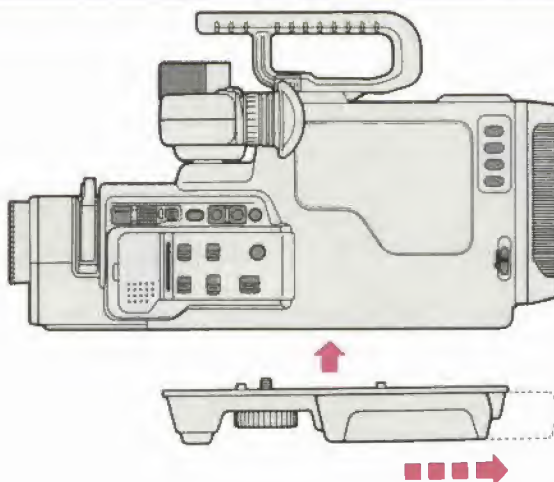


SB-E1 SHOULDER BRACE

The optional SB-E1 Shoulder Brace provides additional support and comfort for shoulder-mounted camerawork.

Align SB-E1's attachment screw to VM-E708's tripod socket and tighten securely.

Adjust for shoulder comfort by sliding bottom portion of brace.



BEFORE REQUESTING SERVICE

If you think VM-E708 may be broken, go through the following list before requesting service.
If using VM-E708 with other units, make sure all connections are complete.

Symptom	Cause	Remedy
Camera does not turn on.	Battery pack charge is low.	Replace with fully charged battery pack.
Camera turns off during operation (when battery pack is in use).	Battery pack charge is low.	Replace with fully charged battery pack.
	Record pause mode has lasted for more than 7 min.	Turn camera on again.
	Stop mode has lasted for more than 5 min.	Turn camera on again.
Cassette compartment does not open.	Battery pack charge is low.	Replace with fully charged battery pack.
Does not function when a button is pressed.	Camera is off.	Turn camera on.
	Video cassette is not loaded.	Load video cassette.
Operate indicator blinks and BATTERY blinks in viewfinder.	Battery pack charge is low.	Replace with fully charged battery pack.
Operate indicator blinks and DEW blinks in viewfinder.	Condensation (Dew) is formed inside unit.	Refer to "Condensation" (p.61).
Operate indicator blinks and EJECT blinks in viewfinder.	Error has occurred and safety mechanism is operating.	Unload and reload video cassette.
DATE blinks in viewfinder.	Lithium battery is not in place or its charge is low.	Insert new lithium battery (see p.12).
Start/stop button is pressed but recording does not start.	Camera is off.	Turn camera on.
	Video cassette is not loaded.	Load video cassette.
	Tape has ended (TAPE END appears in viewfinder).	Rewind tape or use another video cassette.
	Erase prevention switch is set to non-recordable position.	Replace video cassette or set switch to recordable position (see p.16).
	VM-E708 is in stop mode.	Press record button.
No picture appears in viewfinder.	Lens caps is covering lens.	Remove lens cap.

Symptom	Cause	Remedy
Cannot focus.	Zooming lever is in macro range.	Move zooming lever into normal focusing range.
	Viewfinder diopter is not properly adjusted.	Turn diopter adjustment ring until viewfinder display becomes clear.
	Autofocus window is covered.	Remove obstacle from autofocus window.
Play button is pressed but playback does not start.	Camera is off.	Turn camera on.
	Video cassette is not loaded.	Load video cassette.
	Tape has ended (TAPE END appears in viewfinder).	Rewind tape or use another video cassette.
Tape is moving but no picture appears on TV screen.	Video channel on both TV and RF Unit is not properly set.	Set TV and RF Unit to appropriate video channel (see p.26).
	TV/video selector on TV is not set to VIDEO.	Set TV/video selector to VIDEO.

When your video picture contains noise

If your TV images are usually clear but suddenly appear rough or contain noise during video playback, video heads may be dirty. In this case, use the optionally available Canon 8mm Video Head Cleaning Cassette CC-8 included in the Canon 8mm Video Cleaning Kit CK-E1.

- For details, refer to CC-8 instruction manual.



CONDENSATION (DEW)

What is condensation?

When bringing an object from a cold place into a warm place, tiny droplets of water can form on its surface. This moisture is called condensation or dew. If the camera is used when dew is present, both tape and unit may be damaged.

When condensation is present in camera

The operate indicator blinks and DEW blinks in viewfinder. Tape stops automatically. Immediately remove video cassette, leaving cassette compartment open, and turn camera off. Leave camera in dry place.

- Sometimes DEW display may not appear until 10—15 minutes after dew has formed.

To use camera again

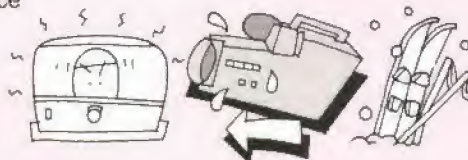
When DEW display and operate indicator no longer blink when camera is turned on, wait at least one more hour before attempting operation. The time required for condensation to clear varies with surrounding conditions; it can be as long as several hours.

Advice

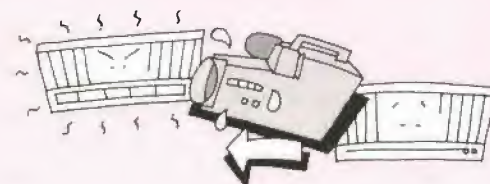
When condensation is likely to occur, place camera in a plastic bag prior to bringing it into a warm area. Wait until it equals the ambient temperature before removing it from the bag.

When condensation is likely to occur:

When camera is brought from a cold place to a warm place



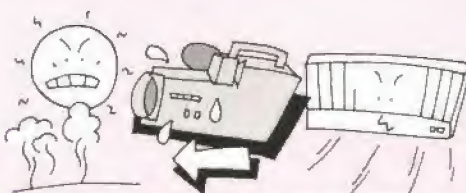
When a cold room is rapidly heated



When camera is placed in a humid room



When camera is brought from an air conditioned room to a warm and humid place



SPECIFICATIONS

Power supply (rated):	6V DC
Power consumption:	7.5W
Television system:	CCIR standard (625 lines, 50 fields); PAL colour signal
Video recording system:	2 rotary heads, helical scanning system; Luminance signal: FM azimuth recording; Colour signal: Converted subcarrier phase shift recording (8mm video standard)
Audio recording system:	Frequency multiplexing with the video signal by two rotary heads (one channel)
Image sensor:	420,000-pixel, 1/2-inch CCD (Charge Coupled Device)
Tape format:	8mm, 30/60/90 minute metal particle*
Tape speed:	20.051mm/s (SP); 10.026mm/s (LP)
Maximum recording time:	3 hours with P5-90 video cassette in LP mode
Lens:	f/1.4, 8X power zoom, 8.5—68mm focal length, macro mechanism (wide/tele)
Focusing system:	Active autofocus, manual focusing possible
Minimum focusing distance:	1.2m, 4mm (wide macro)
Minimum illumination:	7 lux
Filter diameter:	46mm
Electronic viewfinder:	0.7-inch monochrome CRT
Microphone:	Uni-directional electret condenser microphone
Input level:	Audio: -64dBV/600Ω, unbalanced, 3.5mm mini-jack (Mic terminal)
Output level:	Video: 1Vp-p/75Ω, unbalanced; Audio: -10dBV/less than 3kΩ, unbalanced
Signal-to-noise ratio:	Video: max. 47dB (luminance)
Dimensions (W × D × H):	141 × 300 × 153mm
Weight:	1.5kg without battery pack

- * Canon recommends metal particle tape.
Weight and dimensions are approximate.
Errors and omissions excepted.

Subject to change without notice.

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CENTRO DE SERVICIO Y REPARACION Apartado 2019, Zona Libre de Colón, República de Panamá